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ORIGINAL ARTICLES

MINUTES OF THE AMERICAN MEDICAL ASSOCIATION AT ITS 34TH ANNUAL SESSION, HELD IN CLEVELAND, OHIO, JUNE 5, 6, 7, 8, 1883

FIRST DAY—GENERAL SESSION

Promptly at 10 30 o'clock Dr X C Scott arose and said that the time had now arrived for the opening of the Thirty-Fourth Annual Session of the American Medical Association, and he took pleasure in introducing Right Rev Richard Gilmour, Bishop of Cleveland, who would offer the introductory prayer. Bishop Gilmour closed a few preparatory remarks by repeating the Lord's Prayer. Dr Scott then said the next thing on the programme was the introduction of the president, Dr Atlee of Pennsylvania, a gentleman so well known that an introduction was merely a formality. Dr Atlee was received with rounds of applause. He at once introduced General Ed S Meyer, of this city, who delivered the following

ADDRESS OF WELCOME

GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION On this beautiful morning, when the vernal air is once more redolent of sweetest perfume, when all nature, clad in the newness of life, and, breathing of immortality, extends to you her kindest greeting, our people, uniting with your brethern here, bid you welcome, most cordial welcome, to our goodly city, trusting that your deliberations here may prove as profitable to you in the future as they shall be pleasant and memorable to us. In the presence of this vast assemblage of the representative men of your high profession in all America, we are profoundly impressed with the thought that though other convocations have been witnessed here from whose deliberations has gone forth that influence which has sometimes guided the destinies of State and Nation, none, in its sublimity and nobility of its aims, has ever transcended that with which we are honored today.

In these quiet, peaceful, dignified gatherings, you but typify that silent, potent power, which, underlying the philosophy of our institutions, carries us irresistibly onward in the great march of progress toward a higher and a better civilization, proclaiming to the world the truth that the greatest triumphs of the Republic are not achieved amid the ravages of destructive war, but follow in the silent train of intellectual pursuit and research in the realms of science

and religion, whose paths—ever untrodden by muled hoof—are lined with the most beautiful flowers of true happiness and peace.

Thus, through the agency of your powerful influence, you hasten the advent of that day—already too long deferred—when from their proud pedestals now lining all the endless halls and corridors of history, the lightnings of retributive justice shall hurl into oblivion the shattered statues of those who, arraying man against his brother, have strewn the paths, over which they rode rough shod to fame, with the wreck of ruined civilizations, with ravaged and devastated homes, with crushed widows and helpless orphans, with the mangled and broken wrecks of once vigorous manhood, and the moldering bones of myriads of their fellows. And when shall, instead, be enshrined the true heroes of their day, those who, turning war's red sword into the hook and share of husbandry, and lending a helping hand to lift poor humanity upward and onward, have sought only the paths of peaceful progress.

Thus in the application of your science to the discharge of the duties of your profession, do you ever conserve the vital forces of the race, and re-gather and replenish the decaying energies and winning strength of those who, weary and discouraged, have fallen by the wayside.

In this, your ministration, yours is a life of peril, exposure, and unrest, and fraught with gravest responsibility. For, while in thoughtful study, you ascend far above all imagery into the brightest and purest realm of science, in practice you are carried into the innermost courts of love and tenderest affection, of suffering and sorrow, of anguish and despair, often keeping anxious, weary vigil over the dying, only to stand at last with your science exhausted, powerless in the presence of the awful mysteries of death, where but the slightest whisper of hope may fill with radiant light the eye already growing dim, or thoughtless word from flippant tongue rob the poor confiding sufferer of that priceless boon which smooths his dying pillow and bids his weary soul look trustingly beyond. But equally great with its responsibilities are the advantages and opportunities of your high calling. The timely voice of your warning, emanating from authority so high, must, in some measure at least, check the dread course of that monster, dissipation, which has wrecked and ruined myriads of happy homes and yet stalks boldly abroad—the bane and curse of our civilization. The far-reaching influence of your earnest protest must prove fruitful in those business and home circles of our land, wherein to day gro prevalent the false and artificial system.

and ruinous demands require that continued fatal strain of nerve and brain power, which fills our cemeteries with untimely graves, and renders infirm and decrepit thousands upon thousands of men who should still be in their prime

But due regard for the value of every moment of your time, so apparent in the published assignment of your labors, precludes further encroachment without transcending the limits of propriety. And, therefore, indulging the hope that as you view the beauty with which nature and art have combined to crown our city, and contemplating the busy throng of her thoroughfares, the vast commerce riding her harbor, and the hum and clatter of the varied and numberless industries of her two hundred thousand people, and realize that all this is the growth and product of a single generation, you may also learn that her material progress has but kept pace with the hospitality of her homes. Again bidding you most cordial welcome, gentlemen, we wish you Godspeed in your noble work.

Vice-Presidents Dr Eugene Grissom, of North Carolina, Dr Alex J Stone, of Minnesota, and Dr H S Orme, of California, the Permanent Secretary, Dr Wm B Atkinson, and the Treasurer, Dr R J Dungleon, of Pennsylvania, the Assistant Secretary, Dr I N Himes, of Ohio, and the Librarian, Dr C H A Kleinschmidt, of D C, were also present.

Ex-Presidents Dr S D Gross, Pa, Dr N S Davis, Ill, Dr J M Toner, D C, Dr T G Richardson, La, Dr W O Baldwin, Ala, by invitation, were seated upon the platform.

Dr X C Scott, on behalf of the Committee of Arrangements, presented the programme for the entire session, and announced the invitations which had been received and the entertainments which had been prepared for those attending the sessions.

He presented several communications protesting against any change in the Code of Ethics, all of which were referred to the Judicial Council.

The President then delivered the annual address.

On motion of Dr Jas M Keller, of Arkansas, a vote of thanks was tendered to Dr Atlee for his interesting and able address, and it was referred to the Committee of Publication.

On motion of Dr Henry Hakes, of Pennsylvania, the members of the Ohio State Medical Society were invited to seats as members of the Association.

Dr J S Billings, U S Army, presented a communication from the British Medical Association, asking the American Medical Association to co-operate in the work of meteorological observations in their relation to the clinical history of disease. On motion, it was referred to the Committee on Atmospheric Conditions, of which Dr N S Davis is chairman.

An appeal from Dr Dwight W Day, asking a rehearing, was referred to the Judicial Council.

Dr H D Didama, of New York, offered the following, which, on motion, was laid on the table until the report was made by the appropriate committee.

WHEREAS, It is all-important that the medical profession should be provided with accurate and disinterested reports of the various meteorological con-

ditions of the most important of the health resorts, and thus be enabled to judge for themselves of their relative value in the treatment of pulmonary affections therefore, be it

Resolved, That the American Medical Association, as a body, petition Congress and the Secretary of War to authorize the chief signal officer to establish a certain additional number of stations for climatic observations in such localities as have been shown to exercise a beneficial influence upon pulmonary consumption. And be it further

Resolved, That a committee of five members of the regular profession be appointed to agree upon and designate such localities, to carry into effect the foregoing resolution, and to report the result of their labors from year to year to the Association.

The Permanent Secretary then read the list of delegates and permanent members, as registered.

On motion of Dr J M Toner, the list as read, save any that might be protested against, was adopted.

On motion, the Association adjourned until Wednesday, at 9 30 A M.

SECOND DAY—GENERAL SESSION

The President called the Association to order at 9 30 A M.

Prayer was offered by Rev Chas S Pomeroy, D D, of Cleveland.

COMMITTEE ON NOMINATIONS

The Permanent Secretary called the roll of States, and announced the following as composing the Committee on Nominations:

Alabama, W O Baldwin, Arkansas, D Linthicum, California, W F McNutt, Colorado, H K Steele, Connecticut, T M Hills, Delaware, Wm Marshall, District of Columbia, D C Patterson, Georgia, E Foster, Illinois, C T Parkes, Indiana, H G Wood, Iowa, W S Robertson, Kentucky, L S McMurtry, Kansas, W L Schenck, Louisiana, J W Dupree, Massachusetts, C A Savory, Maryland, J J Chisolm, Minnesota, B H Miller, Michigan, F K Owen, Missouri, E H Gregory, Maine, A J Fuller, Nebraska, V H Coffman, North Carolina, E Grissom, New Jersey, B A Watson, New York, H D Didama, Ohio, W M Beach, Pennsylvania, Samuel D Gross, Rhode Island, A Ballou, South Carolina, R A Kinloch, Tennessee, D J Roberts, Texas, H C Ghent, Virginia, Alex Harris, West Virginia, J M Lazzell, Wisconsin, S C Johnson, U S Marine Hosp, T W Miller, U S Army, Jos R Smith, U S Navy, A L Gihon, New Mexico, W R Tipton, Dakota Ter, A B Van Nelson.

CONSTITUTIONAL AMENDMENTS

On motion of Dr Foster Pratt, of Michigan, the following amendment to the by-laws was taken up and adopted:

That Section XIII of By-Laws be, and it is hereby, amended so as to read as follows:

That none but members present shall be elected President, Vice-President, Secretary or Treasurer of the Association, Chairman or Secretary of Sections

ARMY MEDICAL MUSEUM AND LIBRARY

By request of Dr S D Gross, the Permanent Secretary read the following

TO THE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION,

Sir —The undersigned, members of the medical profession, desire to call the attention of the Association to a subject of great importance, as they believe, to the profession and to the public welfare

There has been formed at Washington, under the direction of the Medical Department of the Army, a Museum of Military Medicine and Surgery, and in connection with this, a Medical Library, each of which is believed to be the largest and best of its kind in the world

The building in which these invaluable collections are stored, collections which can never be replaced if destroyed, is insecure, not fire-proof, in the midst of highly inflammable buildings, and overcrowded At the close of the last session of Congress, too late for action, a bill appropriating funds for a fire-proof building, of which a copy is appended herewith, was reported It appears to the undersigned in the highest degree desirable that this bill should become a law at the next session of Congress, and to further this end, that the physicians of the United States should explain to the Senators and members of Congress of the Districts and States to which they belong, the great importance of these collections of books and specimens, the propriety of granting the funds necessary for their maintenance and preservation, the inexpediency of separating them, or removing them from the management under which they have been so successfully conducted, and the necessity of a fire-proof building, that they may be handed down safely to coming generations

The library now contains seventy thousand volumes and sixty six thousand pamphlets The Army Medical Museum contains twenty thousand specimens, illustrating military surgery and medicine The community, and probably many of the profession, are hardly aware of the great expansion of medical literature within the last thirty or forty years When one of the undersigned drew up the first Report on Medical Literature, read before the Association at the meeting in Baltimore in the year 1848, there were not as many as twenty-five medical periodicals published in the United States There are now one hundred and seventeen A similar increase has taken place in other countries When it is remembered that the least valuable of these periodicals may contain new and valuable facts not to be found elsewhere, and that such facts are made accessible to practitioners all over the country, by means of the admirable *Index Medicus*, the value of such a storehouse of medical information is sufficiently obvious It is very important that the Museum and the Library should be kept together, inasmuch as they mutually illustrate each other to a large extent The building containing both would be a great center of attraction for physicians and surgeons from every part of the country, and not this country only, but from all civilized regions of the earth

During the year 1881, no less than forty thousand persons visited the Museum

The formation of this great public library has acted as a stimulus to the establishment of medical libraries in many other cities—in Philadelphia, New York, Worcester, Providence, Baltimore, Buffalo, St Louis, Cincinnati, Brooklyn, and elsewhere

As regards the Library, it should be urged that it is for the benefit of medical education, and of the medical profession throughout the country, which means, let it not be forgotten, for the benefit of all who come under the treatment of physicians The physicians of the country appeal confidently to the General Government to lend its aid in helping on the cause in which the common good is so deeply involved An educated and enlightened medical profession means a great saving of human life and a great diminution of human suffering To be equal to what should be expected of an institution equipped by the nation for the needs of the nation, we believe the following measures should be adopted

The Library should receive promptly every medical book, journal or pamphlet published in the world, for which an annual appropriation of ten thousand dollars would be required

The Museum should have, in addition, an annual appropriation of at least five thousand dollars

The funds required for completing the index catalogue, which is the handle of that great civilizing instrument, the Library, should be promptly provided

A fire-proof building of ample dimensions, for the proper management and safe preservation of the inestimable treasures already collected, and to increase with every succeeding year, should, without delay, be furnished by the General Government

S D GROSS,
AUSTIN FLINT,
O W HOLMES

47th CONGRESS, 2d SESSION —H R 7681 —*Report No 1995* —IN THE HOUSE OF REPRESENTATIVES, FEBRUARY 28, 1883 Read twice, committed to the Committee of the Whole House on the state of the Union, and ordered to be printed

Mr SHAILENBERGER, from the Committee on Public Buildings and Grounds, reported the following bill
A BILL authorizing the erection of a fire-proof building in the city of Washington, to contain the records, library, and museum of the Army Medical Department

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That the erection of a brick and metal fire-proof building, to be used for the safe-keeping of the records, library, and museum of the Surgeon General's Office of the United States Army, is hereby authorized to be constructed upon the government reservation in the vicinity of the National Museum and the Smithsonian Institution, on a site to be selected by a commission composed of the Architect of the Capitol, the Secretary of the Smithsonian Institution, and the officer in charge of the State, War, and Navy Department building, and in accordance with plans and specifications submitted by the Surgeon General

of the Army and approved by said commission, the cost of the building, when completed, not to exceed the sum of two hundred thousand dollars, the building to be erected and the money expended under the direction and superintendence of the officer in charge of the State, War, and Navy Department building

Dr H A Johnson, of Illinois, offered the following preamble and resolutions, which, on motion, were unanimously adopted

WHEREAS, There has been formed in Washington, under the direction of the Medical Department of the Army, a museum of unrivaled completeness and excellence, illustrating military medicine and surgery, and a medical library, which is believed to be the largest and most valuable in the world, and

WHEREAS, It is believed to be of the highest importance for the promotion of medical science, literature and education in this country that these collections should be preserved and made and kept as complete as possible, and

WHEREAS, It is believed that this can be best done by keeping them together under the management which has already produced such excellent results, and by its publications has made them available for use throughout the country, therefore

Resolved, I That the American Medical Association respectfully urges upon Congress the importance of at once providing a commodious fire-proof building, to contain the Army Medical Museum and Library

II That the annual appropriation for this Library should be sufficient to enable it to obtain all new medical publications of all countries as soon as they appear, and also to complete its collection of medical books heretofore published, and that for this purpose the sum of ten thousand dollars is considered a reasonable and proper annual appropriation, and Congress is requested to grant that sum in addition to the amount required for the Medical Museum

III That it is of the greatest importance that the index catalogue of this library, now in course of publication, should be issued as rapidly as it can be properly prepared for the press, and Congress is urged to make the necessary appropriations for this purpose

IV That a special committee of five be appointed, of which the president of the Association shall be ex-officio chairman, to present this matter to Congress, and to call the attention of State medical societies, and of all who are interested in the progress of medicine to the importance of furnishing to members of Congress and senators full information as to the value of this Museum and Library, and the esteem in which they are held by the medical profession of the United States

ASSOCIATION JOURNAL—REPORT OF THE BOARD OF TRUSTEES ON THE ESTABLISHMENT OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Dr Davis, president of the board, reported as follows

"Resolved, That the interests of the Association would be promoted by the publication of its transactions in a weekly medical journal under its own control, instead of in an annual volume, as heretofore,

provided it could be done without involving pecuniary embarrassment, or so far engrossing its funds as to prevent the annual encouragement of original investigations by its members

"Resolved, That so much of the report of the committee on journalizing the transactions of the Association as relates to the appointment of a board of trustees, nine in number, and their duties be, and the same is hereby adopted, and that the president of the Association now appoint a special committee of seven to recommend to this meeting of the Association the names of nine members for election to constitute said board of trustees

"Resolved, That the board of trustees so appointed be requested as early as possible to agree upon a plan of a medical journal, to be called the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, and to send circulars explaining such plan, and asking pledges of support by actual subscription, to the members of the medical profession throughout the whole country, and thereby ascertain as reliably as possible, what degree of support the proposed journal can have as a basis for commencing its publication And that said board also proceed to ascertain and agree upon the best methods of publishing said journal, the best editorial services it can secure to take charge of the work, and the best plans for its issue

"Resolved, That said board of trustees be and are hereby instructed under all circumstances, in whatever plans or contracts it proposes to adopt, to retain the entire control over the use of the advertising, as well as of all other pages of the journal that is proposed to be established, and that said board report in full at the next meeting of this Association the plans upon which it has been able to agree, together with the response of the profession to its circulars asking actual subscriptions to the proposed journal, and that the constitutional amendments proposed by Dr Packard last year be continued upon the table until the report of the board of trustees is received and acted upon

"Resolved, That the treasurer of this Association is hereby authorized to pay out of funds in the treasury the necessary expenses of the board of trustees in printing and distributing its circulars and in conducting its proper correspondence "

In accordance with the foregoing resolutions adopted by the Association at the meeting in St Paul, June, 1882, nine members were appointed to constitute a board of trustees, consisting of Drs N S Davis, of Illinois, E M Moore, of New York, J M Toner, of Washington, H F Campbell, of Georgia, John H Packard, of Pennsylvania, L Connor, of Michigan, P O Hooper, of Arkansas, A Garcelon, of Maine, and L S McMurtry, of Kentucky

Immediately after the adjournment of the Association, a meeting of the board was held at which a majority of the members were present, and an organization was effected by the election of N S Davis, of Chicago, president, and J H Packard, of Philadelphia, secretary The president of the board was instructed to proceed with as little delay as possible to the printing of a sufficient number of copies of the report of the special committee on the subject of

journalizing the transactions of the Association made to the meeting in St Paul, and of the resolutions adopted by the Association, for the use of each member of the board. Also to devise a plan or programme of a weekly journal suitable for the objects of the Association, and submit the same by correspondence to each member of the board. This was done, and a programme for a weekly medical journal containing an average of thirty-two double-column pages of reading matter was agreed upon, each number to contain a department for original articles, embracing all such papers, addresses, reports, etc., as should be referred for publication by the Association, and such other original matter of value as might be contributed for that purpose, a department containing an editorial summary of the progress in the various departments of medical science and practice, an editorial department proper, especially devoted to the discussion of such topics as would be likely to aid in promoting the interests and efficiency of medical organizations, both National and State, and would make the important objects of such organizations better known throughout the whole profession, a department of correspondence from the more important medical centers, both domestic and foreign, and a department for miscellaneous items of intelligence especially in relation to the doings of all medical and scientific societies in this country, and of such notices of the duties of committees, the presentation of papers, the practical working of sections, and the time and place of meeting, as will greatly aid in rendering all the work of this Association, and indirectly of all the State and local associations, more systematic, efficient, original, and co-operative, and consequently far more valuable in scientific and practical results. Having agreed upon the plan of a journal, the board proceeded at once to the printing of 40,000 circular letters containing the principal features of the plan adopted and the objects to be accomplished, together with 40,000 blank pledges of support of such journal if published, and the same number of envelopes, directed, in which to enclose and return the pledge if approved and signed by the recipient, to the president of the board. One copy of the circular letter embracing the programme, one pledge, and one directed envelope, were enclosed in a 1-cent stamped envelope and mailed to members of the profession in all the States and Territories of the Union.

Having very full and recently prepared lists of physicians in the States of Pennsylvania, Indiana, Illinois, Iowa, Minnesota, Texas, Kansas, Dakota, and West Virginia, a larger proportionate number of the circulars reached the members of the profession in those States, than in any of the others. For New York, Connecticut and New Jersey, the volume published in New York containing the registration of regular physicians in those States was used. For Massachusetts, the official list of members of the State and District medical societies was supplied. For Georgia a State gazetteer was used, while for nearly all the other States, only lists of the members of this and the State medical societies, aided in some instances by the last edition of the United Medical Directory. The result was an absorption of three-fourths of the 40,000 circulars in

supplying the fourteen States just named, leaving but a limited supply for the other twenty-three States and Territories.

These details in regard to the distribution of circulars are given, to show, first, that the whole number printed was not adequate to supply a full distribution in all the States, even if complete lists could have been obtained without unreasonable expense and delay, and, second, to explain why a much larger number of pledges were returned from some States than others in the same general division of the country. A full comparison of the returns from States well supplied with circulars, with those from States directly adjoining only partially supplied, fully justifies the conclusion that if all had been as well supplied as the first class, the aggregate return would have been increased more than twenty-five per cent. From the distribution actually made, 2,150 answers have been returned. Of these, 12 were direct expressions of opposition to the proposed change in the mode of publishing the transactions, 38 were equivocal, while 2,100 were unequivocal pledges to sustain the proposed journal, either by the prompt payment of annual dues or by subscription. The last complete list of those who had paid their dues with sufficient regularity to retain their membership is in the volume of transactions for 1881, and contains about 2,200 names. By comparing the number of pledges from each State with the number of members of the Association resident in each, we obtain the following result. Twelve of the States have returned 444 more pledges than they had paying members, as indicated in the list of 1881. The other twenty-five States have returned 468 less than the number of members given them in the list of 1881. These figures indicate that at least 500 of the members of the Association had not taken the trouble to make any reply to the circulars received, while nearly the same number, who are not members, have pledged support by subscriptions. It is fair to presume that those members, who through forgetfulness or indifference, have made no reply, will nevertheless continue their membership. And if so, their names should be added to the present number of pledges, making the aggregate over 2,500 as the actual basis of income from membership dues and independent subscriptions. This would indicate a revenue from membership and subscriptions of \$12,500. As the proposed journal of thirty-two double-column pages of reading matter, without advertising sheets, can be issued weekly on excellent paper and in good style to the extent of 3,500 copies per week, at an aggregate cost for materials, printing, wrapping and mailing of \$6,000 per annum, there would be left in the treasury only \$4,500 for editorial work and current expenses of the Association. But such a journal reaching members of the Association and others in every State and Territory of the Union would constitute one of the best mediums for *legitimate* medical advertising, and under reasonably fair business management the net revenue from that source would not be less than \$5,000 per annum. This sum, added to the income from dues and subscriptions would cover the cost of publication, allowing \$6,000 for editorial work of all kinds and

leave a balance of \$3,500 in the treasury for ordinary expenses and such scientific investigations as might be deemed proper. These estimated expenses are based on actual *bids* from well-established and responsible printing houses, and are for an edition of 1,000 copies in excess of the number of supposed members and subscribers constituting the basis of income. If the estimates both for income and expenditures were limited to the actual number of direct pledges of support, the relative outcome would be the same. But as each new member who may come to this meeting (and there are a considerable number of new members at each annual meeting), will be entitled to a copy of the journal, in addition to the 2,100 pledges already on hand, it would not be safe to provide for less than 2,500 members and subscribers at once. And at least 1,000 extra copies of each issue should be printed, first, to supply new members and subscribers, and, second, to furnish sample copies and complete files when broken by accident or miscarriage. The circular letter containing the programme and blank pledges had been distributed so early in the year that much the larger number of the returns had been made to the President of the Board before the first of January, 1883, and estimates in regard to the cost of publication had been obtained from two reliable printing establishments in Washington, three in Philadelphia, two in New York and two in Chicago. The general results, up to that time, were communicated by letter to each member of the Board, accompanied by an invitation to meet in Chicago for a full consideration of the important matters confided to the Board. The meeting was held on the 17th of January, 1883, in the parlor of the Grand Pacific Hotel, Chicago, at which time a majority of the members, namely, Drs. Toner, of Washington, Packard, of Philadelphia, McMurtry, of Louisville, Davis, of Chicago, and Connor, of Detroit, were present, and full letters also from each of the absent members. After a careful analysis of the returns containing pledges of support, together with the few of an adverse character, the members of the Board voted unanimously in favor of recommending the publication of the journal as previously proposed, being satisfied that it could be done without pecuniary embarrassment to the Association.

Having decided this question, the Board proceeded to consider the general plan on which the work could be most efficiently conducted, and the most favorable place for its publication, which resulted in the adoption of the following propositions:

- 1 The editor to take direct supervision of the whole work, and for business purposes he should employ a clerk, competent to assist in all business matters, such as keeping books, filing papers, answering business letters, etc.

- 2 For assistance in editorial work, he should engage an assistant or assistants, specially qualified to select and write up the progress being made in all the departments of medical science and art, and give to each, out of the editorial fund, a fair compensation for the work performed.

He should also, as far as practicable, secure the services of reliable correspondents in each of the great

medical centers of the country, and some of those in Europe.

- 3 He should establish a direct correspondence with the secretaries or proper officers of all the State Medical Societies, with a view of obtaining early and accurate knowledge of their proceedings.

- 4 Through his clerk he should solicit by circular letters, etc., advertisements from all medical educational institutions and hospitals open for clinical instruction, from book publishers, pharmacutists, instrument makers, and all other legitimate business interests. But all advertisements of *proprietary, trade mark*, copyrighted, or patented medicines should be excluded. Neither should any advertisements be admitted with one or more names of members of the profession as indorsers, having their *official titles* or *positions* attached.

In other words, no advertisements should be admitted which fairly contravene in letter or in spirit the principles of the national code of ethics.

On examining the estimates furnished by responsible printing houses in the four cities previously named, it was found that the most favorable terms had been offered by Tucker, Newell & Co., of Chicago, and the Board decided to recommend the acceptance of their terms, and Chicago as the place of publication.

It is thus seen that the Board of Trustees has endeavored to promptly and faithfully comply with the instructions given, and execute the work enjoined upon it in the resolutions adopted by the Association at its annual meeting in St. Paul, June, 1882.

- 1 By agreeing upon a plan for the proposed JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

- 2 By printing and distributing over 40,000 copies of said plan, accompanied by the necessary explanations, and blank pledges asking a return of the latter to the President of the Board.

- 3 By ascertaining as reliably as possible the cost of publishing the journal on the plan agreed to.

- 4 By assembling at the proper time and in open meeting, carefully canvassing the results, and arriving unanimously at the conclusion that the publication of the proposed journal, on the general plan already stated, could be undertaken not only without serious danger of producing any financial embarrassment, but, on the contrary, with a fair prospect of greatly adding to the prosperity of the Association, by retaining in active connection with it all who may be added from year to year, and by keeping alive a very much more active and beneficial intercourse with the profession at large. And

- 5 By a cordial agreement upon the general plan of business management, the most favorable place for publishing, and upon the chief editor to take charge of the work, providing the Association should accept the recommendations and order it to proceed.

The expenses incurred by the Board for printing, stamped envelopes and clerical work in directing and mailing the same, aggregate the sum of \$709.00, all of which has been paid by the Treasurer of the Association, and vouchers for which are herewith presented. In conclusion, the following resolutions are submitted for your consideration and action thereon.

Resolved, That the report of the Board of Trustees just read be accepted, and the recommendations contained therein concerning the publication of a weekly periodical, to be called THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, be, and the same are hereby adopted

Resolved, That the Board of Trustees are hereby instructed to proceed with the publication of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, at as early a day as is practicable, to take the place of the annual volume of transactions, and that the duties formerly devolved upon the standing Committee of Publication be transferred to the Board of Trustees, and that the Secretaries of the Association during or immediately after each annual session be required to transfer to the editor of the JOURNAL the record of proceedings, addresses, and all written reports of committees and officers, papers and contributions that may be referred for publication, either in general sessions or in any of the Sections

Resolved, That the Treasurer of the Association be, and is hereby directed to make such arrangements with the Board of Trustees in regard to the collection of subscriptions and the disbursement of moneys, as may be necessary for facilitating the business of publishing a weekly medical journal. But all orders on the treasury for disbursements of money in any way connected with the publication must be endorsed by the President of the Board of Trustees

Respectfully submitted,

N S DAVIS,
J M TONER,
LEARTUS CONNOR,
HENRY F CAMPBELL,
ALONZO GARCELON,
P O HOOPER,
L S MCMURTRY

Dr Wm Brodie, of Michigan, moved to accept the report, and adopt the resolutions

Dr W C Wile, of Connecticut, moved that it be printed, and made the order for discussion on Thursday at 10 A M. This was rejected

Dr Wm B Atkinson, of Pennsylvania, expressed his gratification at the report, and in order that no obstacle might be in the way of the success of the journal, voluntarily offered his services of the past year without fee or reward

The motion of Dr Brodie was then adopted, with a few dissenting votes

Dr L S McMurtry, of Kentucky, Secretary of the Board of Trustees, stated that he had been instructed by the Board to report to the Association that it had now selected Dr N S Davis, of Chicago, as editor-in-chief of the JOURNAL

Dr Davis then took the floor, and spoke at some length with reference to the prospects of the JOURNAL, the anxiety which it had given him, and asked the forbearance of the Association with reference to any shortcomings which might appear, and also that the members should not expect too much, and should not be too strict in their comparison of the JOURNAL with the *British Medical Journal*, which had so often been held up for a pattern, for it must be remembered that the *British Medical Journal* had been the work of years

He further announced that he expected to be able to issue the first number of the JOURNAL early in July next

Dr J Solis Cohen, of Pennsylvania, moved that the Board of Trustees be instructed, in addition to the JOURNAL, to print annually a thin, octavo volume containing the minutes of the Association

This motion gave rise to discussion, participated in by Drs Hibbard of Indiana, Qumby of New Jersey, and Byrd of Illinois, and, on motion of Dr T G Richardson of Louisiana, the whole subject was referred to the Board of Trustees

Dr L P Bush, of Delaware, moved that the Association, in consideration of the long services already rendered, and also the kindness, self denial, and willingness to assume the duties of editor-in chief of the new journal, tender a vote of thanks to Dr N S Davis. This was unanimously adopted

CODE OF ETHICS

Dr N S Davis said he had been directed by the Judicial Council to state that that body assumed all responsibility in putting the pledge to support the Code of Ethics upon the blanks to be signed by delegates and permanent members before registering

Dr A B Palmer, of Michigan, asked if it was meant that, by signing this blank, the signer was to sustain the present provisions of the Code, or was to sustain the Code, whatever it might be

Dr Davis answered that the Code as it now stands was meant, and that if the Association made alterations, that then the changes would be considered as binding

TRUSTEES

The President announced the following as the committee to nominate Trustees in place of those whose terms had expired, and to fill the vacancy created by the resignation of Dr Davis

Dr T G Richardson, Louisiana

Dr Wm Brodie, Michigan

Dr J F Hibberd, Indiana

Dr W O Baldwin, Alabama

Dr X C Scott, Ohio

Several questions on ethics were presented by the Chairman of the Committee of Arrangements, and referred to the Judicial Council

Dr J H Hollister, of Illinois, then delivered the address as Chairman of the Section on Practical Medicine, etc

On motion, this was referred to the Board of Trustees of the JOURNAL

Dr T G Richardson announced that the Committee had selected the following to complete the Board of Trustees

Dr Alonzo Garcelon, Maine

Dr P O Hooper, Arkansas

Dr L S McMurtry, Kentucky

Dr J H Hollister, Ill

Dr J K Bartlett, of Wisconsin, then delivered the address as Chairman of the Section on Oculars, etc

On motion, it was referred to the Board of Trustees. Dr J M Toner, District of Columbia, presented the report on 'Medicine and Otolaryngology'

On motion, it was referred to the Board of Trustees

On motion, the Association adjourned to meet on Thursday, at 9 30 A M

THIRD DAY—GENERAL SESSION

The President called the Association to order at 9 30 A M

Prayer was offered by Rev N S Rulison, D D, of Cleveland

TIME OF MEETING

Dr J M Keller, called up his proposed amendment to the By-Laws, permitting the holding of the annual meetings as late as the first Tuesday of September, if desirable

On the suggestion of the Permanent Secretary, he agreed to modify it so as to allow the committee on nominations to select the time as well as the place of meeting, and the By-Laws were so amended

TOXICAL AGENTS

Dr D H Batchelder, of Rhode Island, offered the following

WHEREAS, In the opinion of this Association, the laws of almost every State are too lax in relation to the sale of toxic agents, by which suicidal deaths are made easy, therefore,

Resolved, That there be appointed by the President one or more persons or members of each of the States, who shall be members of this Association, to confer with the legislatures of each of the States, by petition or otherwise, for the enactment of more stringent laws in relation to the sale of all toxic agents

After some discussion, on motion the resolution was adopted

On motion of Dr Foster Pratt, of Michigan, it was

Resolved, That the labors of Dr William Farr, of England (recently deceased), in the organization, classification, and compilation of vital statistics—labors begun in 1838, and perseveringly, wisely, and ably continued by him for nearly half a century—are recognized by the medical profession of the United States as an enduring monument to his ability and learning as a physician, as the real incentive to and the foundation of our own sanitary work, and as a perpetual blessing to present and future generations of our universal humanity, entitling his name and fame to stand with that of other great men, whose genius and labors have resulted in beneficent revolutions of the medical, surgical, and sanitary thought and activities of the civilized world

TRAINED NURSES

Dr S D Gross offered the following, which on motion was adopted

WHEREAS, Good nursing is of paramount importance to the comfort of the sick and the restoration of their health, and,

WHEREAS, The subject is one which strongly addresses itself to the common sense and kindly sympathy of every intelligent member of society, therefore,

Resolved, That this Association, fully recognizing the importance of the subject, respectfully recommend the establishment at every county town in our States and Territories, of schools or societies for the efficient training of nurses, male and female, by lectures and practical instruction, to be given by competent medical men, members, if possible, of county societies, either gratuitously or at such reasonable rates as shall not debar the poor from availing themselves of their benefit

Dr Walter Hay, of Illinois, offered a resolution providing for the organization of a special section to be devoted to the subject of psychological medicine Laid over for one year, as being an amendment to the by-laws

ATMOSPHERIC CONDITIONS, ETC

Dr N S Davis presented the report on Atmospheric Conditions and their Relations to the Prevalence of Disease

The report closed with the following resolutions That the committee be authorized to furnish their report for publication as a part of the transactions of the Association, and to continue the investigations now in progress, with the privilege of drawing upon the treasury for so much of the unexpended balance of the former appropriation as might be necessary Second, that the thanks of the Association are hereby tendered to the Superintendent of the Signal Service, General Hazen, for his uniform courtesy and favors extended, and that he be requested to continue the same as the committee may require The resolutions were unanimously adopted

The resolutions offered by Dr Didama in behalf of Dr Tyndale, of New York, at the session on Tuesday, were then taken from the table and referred to this committee

By request of Dr Davis, Dr Didama, of New York, was added to the Committee on Atmospheric and Ozonic Conditions

On motion of Dr Reed, of Iowa, it was

Resolved, That the sympathy of this Association be and is hereby extended to the bereaved wife and family of the late Dr J C Hubbard, of Ashtabula, Ohio, who was so suddenly snatched from our midst while in attendance upon this Association

FOREIGN DELEGATES

The president appointed the following as delegates to foreign organizations

G J Engelman, Missouri, W M Findley, of Pennsylvania, Walter L Zeigler, Pennsylvania, M H Alter, Pennsylvania, R B Cole, California, Jos H Warren, Massachusetts, C H von Klein, Ohio, W M Lawlor, California, S C Martin, Massachusetts, J C Hutchinson, New York, A M Hawes, Michigan, Edward Borck, Missouri, T F Prewitt, Missouri, E P Allen, Pennsylvania, H McColl, Michigan, I N Qumby, New Jersey, S C Gordon, Maine, Eugene Smith, Michigan, M A Bogue, Missouri, G C Catlett, Missouri, Edward Warren, Paris, France, S Strausser, Illinois, M M Milligan, New Mexico

CODE OF ETHICS

Dr S Pollak, of Missouri, presented the following
The St Louis Medical Society requested me to make a motion to the following effect

A code of ethics is considered essential for such an organization as that of the American Medical Association, and is equal in importance to the written law of a community. Associations, communities, can only be ruled by laws which are made for themselves and by themselves

But the best laws became oppressive and inoperative, when the conditions change which called for their enactment. A revision and change of such laws becomes, then, imperative, as is so frequently instanced by the changes of the Constitution of the United States, and of every State in the Union. Municipal and corporation charters are changed by the will of the governed, who delegate that power to their representatives. The Code of Ethics has an existence coeval with the organization of the American Medical Association. It was absolutely necessary then, and it can not be entirely dispensed with now. But in thirty-four years this country has presented so many phases in its development and progress that new laws are being constantly enacted, old laws are repealed or modified to suit the requirements of the time.

The Code has accomplished all that it was designed it should, but at present many of its features are obsolete, and not adapted to our wants. The necessity of an early revision is very apparent, is loudly called for in all parts of our land, and it cannot be repressed much longer.

The American Medical Association alone has the right and power to order a revision. The other medical organizations, in affiliation with it, can only respectfully ask for it, but they cannot legitimately urge or effect it. The time has come when this loud, and very soon, universal, call should be heeded. The excitement and evil consequences of a schism can be easily averted now, and harmony and fraternal feeling may once more be restored among the members of the medical profession. Therefore,

Resolved, 1, That the American Medical Association be respectfully requested to appoint a committee of one member from each State for the purpose of taking into consideration the propriety and advisability of a revision of the Code of Ethics of the American Medical Association, and to report thereon at the meeting of 1884.

Resolved, 2, That the committee be authorized to prepare a Code of Ethics, which, in their view, will meet the wishes of the profession, and submit the same to the meeting of 1884.

On motion of Dr D Leasure, of Minnesota, it was laid on the table by a large majority.

Dr Wm Brodie offered the following

Resolved, That all papers to be read before the different sections should, before such reading, receive the approval of the chairman of the same.

On motion this was laid on the table.

On motion of Dr N S Davis, Dr Mark L Nardyz was invited to a seat with the Association.

Dr W F Peck, of Iowa, then delivered the address as Chairman of the Section on Surgery and Anatomy.

On motion it was referred to the Board of Trustees.
Dr Foster Pratt, of Michigan, delivered the address as Chairman of the Section on State Medicine.
On motion, it was referred to the Board of Trustees.
The Treasurer presented his report.

REPORT OF THE TREASURER

The Treasurer has the honor to report a balance in the treasury at this date of \$903 93. There is but little of interest to report in regard to the funds of the Association, except, perhaps, the fact that the amount—\$50—authorized by this body to be paid towards the guarantee fund of the "Index Medicus," was materially reduced by the refusal of a portion of the amount paid, under authorization of the Association, in 1881, and an unclaimed portion of the amount guaranteed in 1882, all of which is respectfully submitted.

June 5, 1883

The Librarian presented his report.

RICHARD J DUNCLISON,
Treasurer

REPORT OF THE LIBRARIAN OF THE LIBRARY OF THE AMERICAN MEDICAL ASSOCIATION

MR PRESIDENT I have the honor to submit the accompanying catalogue of additions made to this library by donations, exchange, and purchase during the past year. The catalogue shows that since the last report of my predecessor, Dr Wm Lee, there have been added 115 distinct titles, exclusive of yearly volumes of transactions of societies, reports of hospitals, boards of health, and volumes of medical journals previously catalogued as such. By this addition the library has been increased to 1,817 distinct titles, representing about 5,713 volumes, inclusive of pamphlets.

The donations to this library, as a rule, consisted in monographs presented by their authors, the library otherwise depending upon its own resources to obtain periodicals by exchange.

I respectfully recommend that the home and foreign exchanges be continued, and, wherever possible, increased, that \$200 be placed at the disposal of the Librarian, to be expended as heretofore for the purposes of binding and purchase of periodicals, proceedings, and transactions to complete sets already in our possession, also that \$50 be again subscribed to the Index Medicus under the same conditions as have obtained heretofore, in order that the editors and publishers of this valuable periodical may again be assured of the full appreciation of the Association and of its desire to ensure the success of their work.

In conclusion, I feel it my duty to state that the admirable system introduced and perfected by my immediate predecessor, Dr Wm Lee, has rendered my work as Librarian, which, without such system, would have been difficult and laborious, an easy and pleasant task. Respectfully submitted,

C H A KIRCHSCHMIDT, M D *Librarian*
3,113 N St, N W, Washington, D C

PUBLICATIONS

The Committee of Publication have the honor to present their report for the past year.

Volume 33 of the Transactions was published and issued to the member of the Association early in

present year, after the usual delay, which seems to be unavoidable in the issue of the annual volumes. The causes which produced such delay have been alluded to in almost every preceding report of the Committee of Publication, and need not therefore, be dwelt upon at this time. The Committee, with the view of publishing the Transactions at as reasonable a rate as possible, solicited estimates from the various printing establishments of Philadelphia, and awarded the work to the lowest responsible bidder. The Committee have also made arrangements for the printing of the Index of all the volumes of Transactions, in accordance with the instructions of the Association, and it is now being printed as rapidly as possible, under the supervision of the Permanent Secretary, by whom the Index was prepared. The Committee did not receive any instructions from the Association as to the number of copies to print, or the method of its distribution, and they have therefore exercised their own discretion in the matter, and have ordered 1,500 copies, at a cost of about \$500, believing that this will be quite as many as the Association will ever need for its members. The Committee have not thought it desirable that a volume of this kind should be distributed in the same way as the annual volume of Transactions. There is a large number of members whose direct interest in the Association is but transient, as has been exhibited in several annual reports of the Treasurer, and there is also a large number who have but recently become connected with the Association, to whom an index would be of but little importance, in the absence of all the volumes to which such an index is a companion. As a general distribution to all past and present members of the Association would be unadvisable and entirely impracticable, the Committee would suggest that the price of the Index be fixed at *one dollar* a copy, postpaid, to meet the outlay for its publication, and the possibility of a large number being left on hand unsold. It is probable that a limited field for the sale of the Index will be found also among medical and general libraries. The expenses of making its publication known and of mailing may be met out of the proceeds of the sale of the work. It is estimated that the Index will make a volume of about 120 pages. As it is desirable that the work, when issued, as it will soon be, should be rapidly distributed, the Committee would respectfully request the Association to instruct them how to act, and in the absence of any explicit resolution on the subject, will accept the simple reception and adoption of this Annual Report of the Committee of Publication as a sanction of the suggestions contained in it.

ALBERT FRICKE,

Chairman Com of Publication

June 5, 1883

On motion, these reports were severally accepted and referred for publication

OFFICERS

Dr Eugene Grissom, Chairman of the Committee on Nominations, presented the following report

To the President of the American Medical Association

The Committee on Nominations respectfully presents

the following recommendations for officers and members of committees for 1884

President—Dr Austin Flint, Sr, of New York

First Vice-President—Dr R A Kinloch, Charleston, S C

Second Vice-President—Dr T B Lester, Kansas City, Mo

Third Vice-President—Dr A L Gihon, U S Navy

Fourth Vice-President—Dr S C Gordon, Portland, Maine

Treasurer—Dr R J Dunghson, Philadelphia, Pa

Librarian—Dr C H A Kleinschmidt, Washington, D C

Place of meeting, 1884, Washington, D C, time of holding meeting, first Tuesday in May

Chairman Committee of Arrangements—Dr A Y P Garnett, Washington, D C

Assistant Secretary—Dr D W Prentis, Washington, D C

Judicial Council—Dr F D Cunningham, of Virginia, H O Marcy, Massachusetts, W O Baldwin, Alabama, J S Billings, U S A, Truman W Miller, U S M H S, Eugene Grissom, North Carolina, R N Todd, Indiana

To fill vacancy in Judicial Council—for Class 1884—Dr E W Clark, Iowa

Practice of Medicine—Chairman, Dr John V Shoemaker, of Pennsylvania, Secretary, Dr W C Wile, of Connecticut

Obstetrics and Diseases of Women—Chairman, Dr T A Reamy, of Ohio, Secretary, Dr J T Jelks, of Arkansas

Surgery and Anatomy—Chairman, Dr C T Parkes, of Illinois, Secretary, Dr H O Walker, of Michigan

Ophthalmology, Otology and Laryngology—Chairman, Dr J F Chisolm, of Maryland, Secretary, Dr J L Thompson, of Indiana

Diseases of Children—Chairman, Dr Wm Lee, of Maryland, Secretary, Dr W R Tipton, of New Mexico

Oral and Dental Surgery—Chairman, Dr T W Brophy, of Illinois, Secretary, John S Marshall, of Illinois

State Medicine—Chairman, Dr Deering J Roberts, of Tennessee, Secretary, Dr C W Franzoni, of D C, Alabama, Jerome Cochran, Arkansas, J J McAlmont, California, W F McNutt, Colorado, Chas Denison, Connecticut, C W Chamberlain, Dakota Territory, A B Van Nelson, Georgia, J P Logan, Illinois, O C DeWolf, Indiana, George Sutton, Iowa, W S Robertson, Kansas, D W Stormont, Kentucky, J P Thompson, Louisiana, S C Chaille, Maine, S H Weeks, Maryland, John Morris, Massachusetts, H I Bowditch, Michigan, F K Owen, Minnesota, C N Hewitt, New Mexico, M M Milligan, District of Columbia, S Townshend, Delaware, L P Bush, Oregon, Horace Carpenter, Mississippi, H A Gantt, Missouri, Lester Hall, Nebraska, L B Larsh, New York, E M Moore, New Jersey, Ezra M Hunt, North Carolina, Jas McKee, Ohio, T L Neal, Pennsylvania, R J Dunghison, Rhode Island, C H Fisher, Tennessee, C C Fite, Texas, Thos D Wooten, Vermont, S

W Thayer, Virginia, J L Cabell, West Virginia, Geo B Moffet, Wisconsin, J T Reeve, U S Army, J R Smith, U S Navy, J M Brown, U S M H S, H H Bailhache, South Carolina, Manning Simmons

Committee on Necrology—Chairman, Dr J M Toner, Washington, D C, Alabama, R F Michel, Arkansas, Dr Turner, California, Henry M Gibbons, Jr, Colorado, Chas Denison, Connecticut, C H Pinney, Dakota Territory, A B Van Nelson, Georgia, Dr H F Campbell, Illinois, J H Chew, Indiana, William Lomox, Iowa, S B Chase, Kansas, C V Mottram, Kentucky, W S Reynolds, Louisiana, Earnest Lewis, Maine, A J Fuller, Maryland, Chris Johnson, Massachusetts, J H Gilman, Michigan, W F Breakey, Minnesota, F A Dunsmore, Mississippi, Wirt Johnson, Missouri, H H Mudd, Nebraska, R C Moore, New York, H D Didama, New Mexico, W H Page, District of Columbia, William Lee, Delaware, W Marshall, New Jersey, G T Welch, North Carolina, Hubert Haywood, Ohio, Starling Loving, Oregon, Dr H H Carpenter, Pennsylvania, Frank Woodbury, Rhode Island, W E Anthony, Tennessee, J B Lindsley, Texas, M D Knox, Vermont, O F Fassett, Virginia, L B Edwards, West Virginia, W K Curtis, Wisconsin, E L Boothby, United States Army, W S Forwood, United States Navy, A L Gihon, United States Marine Hospital Service, Walter Wyman, South Carolina, F P Porcher

On motion of Dr N S Davis, the report was unanimously adopted

Dr H D Didama then read the following letter from Dr Austin Flint, addressed to him as a member of the Committee on Nominations

"Circumstances render it necessary for me to return early to day, June 7th, to New York Will you kindly express to our brethren, the members of the American Medical Association, with my sincere thanks, an assurance that I thoroughly appreciate the great honor which has been conferred on me I accept the honor, feeling assured that I may confidently expect co-operation and indulgence in my efforts to fulfill the duties which it involves"

On motion, the Association adjourned to meet at 9 A M

FOURTH DAY—GENERAL SESSION

The President called the Association to order at 9 30 A M

Prayer was offered by Rev C T Collins, of Cleveland

The amendments to the Constitution and By-Laws as offered last year were then called up

The following, offered by Dr N S Smith, Dakota "To provide for the admission to membership of two delegates from the Medical Bureau of the United States Indian Service, to be nominated by the Surgeon-in-Chief of that Bureau, and approved by the Secretary of the Interior," was, on motion, laid on the table

The following, offered by Dr J M Toner, D C "That the office of Permanent Secretary be vacated,

and that the Nominating Committee hereafter annually nominate a Secretary who will serve without compensation," was withdrawn by Dr Toner

The following, offered by Dr J H Sears, Arkansas "That the Chairman and Secretary of each Section may add any number of earnest workers to their Sections, in addition to those named by the Nominating Committee, and that the Librarian be made a permanent officer," was, on motion, laid on the table

The following amendment to the By-Laws, offered by Dr J W Smith, Iowa Art II Sec 8 Permanent members strike out the words "but without the right of voting," was, after much discussion, on motion, indefinitely postponed by a very large majority

JUDICIAL COUNCIL

Dr N S Davis, from the Judicial Council, reported that the petition of D W Day be returned, with leave to supplement the paper with a written statement of the character of the new evidence he proposed to introduce Further, that in the case of D H Goodwille, of New York, the Council decided that his registration be canceled, and the annual dues be returned

Dr L Turnbull, of Pennsylvania, offered a resolution that the legislature of each State be petitioned to pass laws requiring railroad employes to be examined regarding their hearing before taking charge of any railroad train On motion it was referred to Section on Otology, etc

Dr Foster Pratt presented the following, which had been referred to the Association from the Section on State Medicine

Resolved, That being impressed with the truthfulness and importance of the Memorial of the Parliamentary Bills Committee of the British Medical Association, under date of March 17, 1883, the American Medical Association urge upon the Congress of the United States the subject of competent medical and sanitary service, and proper provision for its maintenance on board all trans-oceanic passenger vessels, and that a committee of five be appointed to promote this object, and to report upon the condition of the subject at the next session

On motion the resolution was adopted

The President announced as the committee on the above Drs A N Bell, New York, A L Gihon, U S N, H O Marcy, Massachusetts, I N Quimby, New Jersey, Henry H Smith, Pennsylvania

Dr A N Bell, of New York, offered the following

WHEREAS, The practice prevails of reading papers before the several Sections, at the option of their authors, without sufficient regard to the special objects for which the sections were created, therefore,

Resolved, All papers hereafter offered or intended to be read before the Association, or any of its Sections, except the address of the President and Chairman of the Sections, shall be first referred to the Trustees of the JOURNAL for classification and appropriate reference

After much discussion on motion of Dr D F Cunningham of Virginia, the whole subject was laid on the table

Dr W Brodie offered the following, which was adopted by a rising vote

WHEREAS, This Association takes a deep interest in the efficiency of the Medical Department of the United States Army, and

WHEREAS, The late chief of this Department, Surgeon-General Joseph K. Barnes, contributed largely to the efficiency of this Department in the work which it has been and is doing for medical science and education, therefore

Resolved, That this Association receives with profound regret information of the death of General Barnes, and desires to record its appreciation of the great value and importance of the work which he has done and enabled others to do for the advancement of medical science

Resolved, That this Association recognizes the energy and ability which characterized the administration of General Barnes, and his services in connection with the Army Medical Museum and Library, and the publication of the Medical and Surgical History of the War, and other works of great value to the profession

Resolved, That a copy of these resolutions be sent to the Surgeon-General of the Army

Dr J M Keller offered the following, and asked that it be referred to the Section on State Medicine, which was agreed to

Resolved, That in the very near future, if not now, cremation will become a sanitary necessity in the large cities and populous districts of the country

The President appointed as delegates to the Canadian Medical Association, Drs W Brodie and H O Walker, of Michigan

On motion of Dr J M Toner, it was

Resolved, That we tender a vote of thanks to our Secretary and Treasurer for the efficient and satisfactory manner in which they have discharged their several duties

By request of Dr R F Blount, of Illinois, Chairman of Section on Diseases of Children, his address was referred to the Board of Trustees without being read

Dr I N Quimby, New Jersey, offered the following

WHEREAS, We, the delegates of this Association, have received at the hands of the citizens of Cleveland the most elegant, cordial and unstinted hospitality, and

WHEREAS, To make mention of all the names of the good citizens who have so handsomely entertained us, would be unnecessary, yet, at the same time, we cannot refrain from expressing our special thanks to the physicians of Cleveland for the elegant entertainment at the Opera House, also to Mr and Mrs Stewart Chisolm, A C. Armstrong, R R Herrick, W P Southworth, Henry A Stephens, Rev and Mrs Chas Pomeroy, Mr and Mrs Leggett, W G Rose, W B Hale, W J Boardman, E B Hale, Jesse H McMath, Jos Perkins, W H Harrison, G E Herrick. In all the above handsome homes and palaces we were so kindly and cordially received by the host and hostess, accompanied in all instances by a large number of beautiful and attractive ladies, that

many of us, we fear, will find it quite difficult to take our final departure from the city of Cleveland, and when the unkind and cruel hand of time points to the inevitable hour of our leaving, we will feel ourselves inclined, like the unfortunate wife of Lot, constantly to turn back, to receive once more the warm and cordial grasp of the hand in which a heart did beat, and hear again those pleasant voices which did us kindly greet. But whether we come or whether we go, or in whatever country or clime our lot may be cast, one thing be assured, that the kindness and good-will extended to members of our Association have made an indelible impression, which can never be erased or forgotten

We also wish to extend our hearty thanks to the Cleveland press, especially to the *Herald* and *Leader* for their energy and enterprise shown in getting such extended and accurate daily reports of our proceedings. It is evident that while these papers live, Cleveland will never want for light. Also to Dr X C Scott and his colleagues on the Committee of Arrangements for their efforts to make this meeting a grand success

After several efforts to amend this resolution, all were negative, and it was unanimously adopted

The Sections reported their minutes, which, with the accompanying papers, were referred to the Board of Trustees

Vice President Dr E Grissom having taken the chair, Dr Atlee made some remarks on taking leave of the Association as its President

Dr Alonzo Garcelon, of Maine, offered the following, which was unanimously adopted

Resolved, That the thanks of this Association be extended to J L Atlee, the retiring President, for the able, dignified, and satisfactory manner in which he has presided over the deliberations of the Association, and that he retires with the best wishes of every member of this Association for a long continuance of a life so highly useful not only to the present but to all future generations

In the absence of the other officers elect, Vice President Dr T B Lester, of Missouri, then declared the Association adjourned, to meet in Washington, D C, on the first Tuesday of May, 1884

WM B ATKINSON,

Permanent Secretary

ANNUAL ADDRESS

BY JOHN L ATLEE, M D, OF LANCASTER, PENN.,
PRESIDENT OF THE ASSOCIATION

GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION. Permit me to express my feelings of gratitude for the unexpected honor conferred upon me at the last meeting of the Association, and to cherish the hope that in fulfilling the duties of this responsible position I may be sustained by your cordial co-operation. We meet here to engage earnestly in furthering the interests and objects of the medical profession. We have come together from all parts of our broad country, charged with these great responsibilities. It is fitting to express here deep regret at the absence

from our councils of delegates from the Medical Society of the State of New York. Let us hope that this absence may be only temporary, and that at the next meeting every State may be represented.

As specialties are so much in favor at the present time, I have thought it well, though far from favoring them on ordinary occasions, to bring prominently forward, in my address to-day, my own rare specialty, namely, the having been a graduate of sixty-three years' standing. Instead, therefore, of calling your attention to the more strictly scientific subjects that are so generally considered upon such an occasion as this, it has occurred to me that some reminiscences of my early medical life might not be wholly unacceptable, or devoid of interest and instruction.

When I began my medical studies in 1815, there were but few medical colleges in the country—the medical department of the University of Pennsylvania, the College of Physicians and Surgeons of New York, and the colleges at Baltimore, Harvard, New Haven, and Lexington, Ky. The University of Pennsylvania was the leading institution, to which students from all parts of the country came. The facilities for clinical instruction at the university were confined to the Pennsylvania Hospital and the Philadelphia Alms-house, but of these lectures and the distinguished clinical teachers I shall speak again. Having no opportunities for studying practical anatomy before matriculation at the University of Pennsylvania, I devoted myself more particularly to that branch in my first course of lectures, 1817-18. The chair was then filled by Dr. Caspar Wistar, one of the most able and accomplished teachers of anatomy which this country has produced. His amiable deportment and kind treatment of students made an impression upon me which I shall never forget, and after the lapse of more than sixty-five years the thought of him kindles in my breast emotions of genuine pleasure. As I remember him, he was of medium stature, apparently about sixty years of age, and so impressive was his teaching of anatomy, up to the time of his death, which occurred very suddenly, in January, 1818, that his words remain with me yet. He was certainly a man of great personal magnetism, extremely courteous in his manners, and gentle in disposition; he was always ready to converse with the students and help them in their difficulties. It is no wonder that he was greatly beloved by the students. The announcement of his sudden death from disease of the heart, on the night after he delivered his last lecture, produced a shock among the students that I shall never forget.

Just here, I may appropriately allude to the foundation of a social institution, long known in Philadelphia as "the Wistar Parties." Dr. Wistar had been in the habit of inviting to his house, on Saturday evening, men of learning and distinction, both citizens and strangers. The ability and social qualities of the professors of the University of Pennsylvania and of the eminent medical men of Philadelphia, caused always the presence of a large infusion of medical science in the composition of his parties. After his death, these gatherings were revived and continued by his friends, and they were still known

as "Wistar parties" in honor of their founder. In this way originated the celebrated social gatherings which occupied so important a share in the social annals of Philadelphia. I remember my gratification when young at meeting some distinguished gentleman from abroad, and many no less distinguished from our own country.

The course of lectures on anatomy, interrupted by the death of Dr. Wistar, was subsequently finished by Dr. John Syng Dorsey, a favorite nephew of Dr. Physick. He completed the course with credit, and was subsequently elected to fill that chair. Unfortunately, he also died from a very short illness, after delivering his introductory lecture, within a week of the beginning of the term. It was a great loss to the university, and a very severe blow to Dr. Physick—one from which he never recovered. At this period there was no American work on anatomy, but about this time Dr. Wistar's Anatomy was published, and adopted as a text-book. It was received with great favor, even with enthusiasm, by the students. The assistants to the professor of anatomy at this period were Drs. William E. Horner and Hugh L. Hodge, afterward highly distinguished in their respective branches, anatomy and midwifery.

Dr. John Redmond Cox was the professor of chemistry in the winter of 1817-18, a grandson of Dr. John Redman, one of the leading physicians of Philadelphia in his day, and first president of the College of Physicians. Dr. Cox had the reputation of being one of the most diligent students in Philadelphia. He was very careful in his experiments, and in lecturing was very punctual in filling the whole of the hour allotted to him. The chair of midwifery, during my first course, was filled by Dr. Thomas C. James, a very modest and agreeable gentleman of Quaker origin. He had such a sense of delicacy that he could not bring himself to lecture on the female organs of generation, but entrusted this part of his course to Dr. Horner. Although a graduate of the University of Pennsylvania, he subsequently became a pupil of Dr. Denman, of London, whose work on midwifery, together with that of Burns, and Dr. Dewees' translation of Baudelocque, constituted the principal works on that subject. Dr. James, after Denman, was a strong advocate for the short forceps.

Dr. Nathaniel Chapman, at this time, and for many years afterward, filled the chair of the institutes and practice of medicine. He was a most eloquent and impressive lecturer, and the idol and tried friend and benefactor of the student. He was, moreover, a man of very marked ability, eloquence, and great social qualities. Having to teach the institutes, as well as the practice of medicine, it required two courses of lectures to complete the subject. The physiology of that day was very different from that of the present. The microscope had hardly begun to be applied to the study of anatomy, and so little did Dr. Chapman appreciate it, that it was a standing joke with him to quote old Leeuwenhoek as having discovered with his microscope "twenty thousand playing upon the point of a needle." The most remarkable especially disease

thoroughly posted in the departments which he taught, at that time, although they have advanced wonderfully since his day. He was a man of very imposing presence, rather above the medium height, always neat in his dress, perfectly well-bred, and uniformly obliging and polite to the students. I believe that he did more for the advancement of medicine in his day than any other person with whom I was acquainted. He established a school, called Chapman's Institute, for the benefit of his private students, of whom he always had thirty or forty, and other students who chose to attend. The building was in the rear of his house, with a private entrance, and he employed, as teachers of his classes, gentlemen who afterward became eminent professors at the university and at the Jefferson Medical College, among whom may be mentioned Professor William P. Dewees, Hugh L. Hodge, and John K. Mitchell.

Last but not least among the faculty of that day was Dr. Philip Syng Physick, the great American surgeon, who that winter, 1817-1818, delivered his last course of lectures on surgery. A pupil of John Hunter, he taught the doctrines of that great man. As I recall his course of lectures, it seems to me that he was one of the most impressive teachers that I have ever listened to. Dr. Physick was remarkable for great attention to details, and in his operations upon the cadaver he carefully observed all the rules for operating upon the human body. He also recapitulated the lecture of the preceding day before going on with his subject, by questioning the students who occupied the first two rows of seats in the amphitheater. I may refer to one incident which may illustrate his method and his carefulness. On one occasion he stumped the whole class, he had been lecturing on lithotomy the preceding day, and he put the question to the first student, "What instruments should be provided for the operation?" The answer appeared to have been correctly given, but he was not satisfied. The question was repeated to the next student, and finally to the whole class with the same result. Dr. Physick then said it was "a pin, gentlemen, a pin," that was needed to complete the list. This showed his precision, and impressed upon us the necessity of taking care never to go to an operation without the minutest preparation.

Dr. Physick was a man of medium height, with very regular features. His face at that time was pale, as if he suffered from delicate health. He was of very abstemious habits. I remember on one occasion, at a party given at his house, when the servant brought in a tray with wine, I was standing beside Dr. Chapman, when I placed my hand upon a decanter, as I supposed, of wine, Dr. Chapman touched my elbow, and told me not to take that, I filled the glass from another bottle, and afterwards asked the Doctor why he had checked me, he said the first was simply colored water that Dr. Physick had provided for his own use.

In speaking of Dr. Physick's teaching, I should also say that he always lectured extemporaneously, the didactic lectures on inflammation being read by Dr. Dorsey, his nephew. Dr. Physick was dignified in his deportment, and eminently grave, we rarely saw

a smile upon his face. His usual dress in the lecture room was a blue coat with metal buttons, white vest, and drab pantaloons. He was remarkably staid and reserved in his manner, and was always regarded with reverence and great respect by the students. He never indulged in any flights of imagination, and was purely a practical lecturer who brought his knowledge from the stores of his large personal experience.

One of his favorite precepts was to insist upon great attention to diet after surgical operations. I may mention this anecdote. In one of his lectures he spoke of a very important surgical operation, and said that there was a necessity for attention to absolute diet. The next day in recapitulating, he asked a student what was meant by absolute diet. The student said "Toast or barley water." "Will any gentleman tell me what is meant by absolute diet?" appealing to the whole class. There was no reply. "Water, gentlemen, water." A precept I have never forgotten, and which, I think, is not sufficiently observed at the present day after important surgical operations.

The clinical teaching of that day was not given at the medical college, as it now is, but at the Pennsylvania Hospital, and the Philadelphia alms-house, then in the city, each institution affording an excellent school of instruction to the students. As the clinical hours were the same at both institutions, I chose the alms-house as affording a larger field.

Among the clinical teachers of that day, very few were superior to Dr. Joseph Parrish, who had been a pupil of Dr. Wistar. He was a man of most amiable character, thoroughly devoted to the advancement of the profession, having large classes of private students every year, to whom he lectured, and for whom he also provided able assistants to aid in teaching. One of these was the late Dr. George B. Wood. Dr. Parrish was a man of warm sympathies, and he testified to his benevolence in the manner in which he conducted his clinics. Let me give you an illustration. A poor, weather-beaten sailor was brought to the alms-house suffering very much from rheumatism. Dr. Parrish ordered the man to be clothed in flannel, and have a bottle of porter daily. On the next clinic day Dr. Parrish, on inquiring, found that neither had been attended to. He repeated the order, with a mild rebuke to the steward. At the next visit, three days afterwards, finding that his previous orders had been disobeyed, he called for the steward, and remained at the bedside of the patient until the order was fulfilled.

With regard to the treatment of that day, I shall say little, the text-books then studied fairly present it to you. Would that I could speak more satisfactorily of the treatment of the insane as I remember it. They were generally confined in the basement of the alms house in small cells, some with manacles, others with chains, seldom had they access to fresh air, and often they had nothing but loose straw for their bedding. This unhappy and inhuman state of things continued until Pinel and Esquirol established a course of treatment more consistent with the dictates of science and humanity. In a recent visit to the State Lunatic Hospital, at Harrisburg, Pa., of

which I am a trustee, not one of the four hundred insane inmates was the subject of mechanical restraint

At that time, the resident physicians at the almshouse were not graduates in medicine, but last-course students, who fulfilled their duties while preparing for graduation. The requirements for graduation were attendance upon two full courses of lectures, of four months each, a written thesis on some medical subject, attendance at the hospital or almshouse, and an oral examination in the presence of the whole faculty.

Many of the elderly gentlemen present to day must have heard of the much dreaded "green-box." During the time of Drs. Rush and Barton, it was reported that favoritism was shown to their respective students, and the same was said of the students of Drs. Chapman and Dorsey. To obviate this, or the appearance of it, a large green screen was placed across one corner of the room, having a door behind it, through which the candidate entered, and here underwent his examination, unknown to any one but the dean of the faculty. This mode of examination was adhered to until after the death of Dr. Dorsey, when it was optional with the student to go into the green-box or present himself openly before the faculty. Some ten or twelve candidates had such a terror of the green-box that they went to New York, where they obtained the degree of M. D. by undergoing an examination and paying the graduating fee.

It was the time of calomel and the lancet. With regard to the one, I need not speak, but of the latter I feel well assured that the almost total disuse into which it has fallen has cost many valuable lives. From a very large experience in its use, I am satisfied, fully satisfied, that if we depended more on the early use of the lancet in the congestive and inflammatory states of many diseases, our practice would be more successful than it now is. At the present time there is too exclusive reliance upon medicines affecting the nervous and vascular systems, which act with less efficiency and are less prompt. It is, in my opinion, a very important subject, and I feel assured that ere long the lancet will be more freely used than it is now. In the congestive chills preceding inflammatory diseases, and in the cold stages of intermittents, I have frequently broken up the paroxysm, and relieved the patient by the lancet alone.

In the class of 1817-18, there were many men who afterwards became distinguished in their respective departments. Time will not permit me to enumerate them all.

Among the first was one with whom I was very intimate, Dr. George McClellan. A man of great natural talent, quick perception, wonderful memory, prompt to decide and prompt to act, he made himself, during his pupilage, one of the best anatomists in the country, and subsequently brought more talent into surgery, than any man I have ever met with. During his brief, but brilliant career, he performed more surgical operations than any other surgeon in Philadelphia, and he undertook to perform, and did perform successfully, some operations which were considered impracticable by other surgeons. Among these was the removal of the parotid gland. It was

my good fortune to visit with him his first patient the day after the operation, and although it was afterwards reported that it was not the parotid gland I made a very careful examination of the tumor, and of the patient, and was perfectly satisfied of its identity. This operation he performed several times afterwards, one of them on a young Irishman, where Dr. Deal, of Dublin, an eminent surgeon, had previously failed. A beautiful illustration of his diagnostic ability was shown to me when on a visit to Philadelphia. A female infant, about four or five months old, whose parents belonged to one of the most distinguished families in New York, was brought by her father to Philadelphia, to consult the oldest leading surgeons of the city, who all pronounced the case hopeless. The child had from birth a complete paralysis of the right arm and hand. As Dr. McClellan, at that time, was beginning to acquire popularity as a surgeon, the father was persuaded to consult him. Dr. McClellan made a careful examination, and found that the clavicle was pressing on the brachial plexus of nerves, as it passes over the first rib, and that the paralysis was owing to this cause. All that he did was to elevate the shoulder and the clavicle by mechanical means, and the functions of the arm were entirely restored. I saw it playing equally well with either arm on the nurse's lap.

Dr. McClellan was of medium size, fair complexion and blue eyes. He was very attractive and agreeable in his manner, very vivacious, and was called a "bundle of nerves." He was very fond of society, and a general favorite wherever he was known. There was no jealousy in his disposition, and I may be permitted to add that he was the only surgeon in Philadelphia who congratulated me upon the success of my first operation for ovariectomy in 1843, when I revived the operation which, after its introduction by Ephraim McDowell, had fallen into disuse. He sought me at my hotel, when on a visit to the city, and gave me a most cordial embrace.

Dr. McClellan was among the first to suggest and urge the establishment of another medical college, in Philadelphia, and with the assistance of Dr. Eberle, he determined to get a charter from the legislature. Dr. Eberle, being a native of Lancaster county, and, having practiced both in the city and county for several years before his removal to Philadelphia, had many friends there, and wrote to them, asking their assistance in procuring a charter from the legislature. With a view to furthering the cause, a public dinner was given to Dr. Eberle by the leading gentlemen of Lancaster, and resolutions were then passed instructing our representatives at Harrisburg to favor the charter. Notwithstanding the opposition which had always existed among the friends of the university to the establishment of another school, a charter was obtained authorizing the trustees of the Jefferson College, at Canonsburg, to grant degrees in medicine and to locate the school in Philadelphia. Another member of the class of 1817-18, a native of Lancaster, and when young a schoolmate of mine was Dr. John Rhea Barton, who began the study of medicine with my preceptor, Dr. Samuel Humes, and through the

influence of his uncle, Professor Benjamin Smith Barton, of the university, was appointed a resident pupil at the Pennsylvania Hospital. At that time, I believe, the residents were apprenticed for five years. Such was the distinction he attained in his position that immediately after receiving the degree of Doctor of Medicine he was elected one of the attending surgeons, an unprecedented event. While in this position he acquired the reputation of being one of the most dexterous operators in the country. A gentleman, a physician, who, after graduating here, had spent five years in Paris, and who had seen Dupuytsen, Boyer and Desault operate, told me that with the exception of Dr. Physick, who had been his preceptor, he had never seen Dr. Barton equalled as an operator. He was ambidexterous, and instead of changing sides in amputations, he would change hands.

Among my fellow-students in 1817-18, and fellow-graduates in 1820, I should be unmindful of what is due to extraordinary merit, were I not to speak of one who has done more for American medical journalism, than any other physician in the country. I allude to the late Dr. Isaac Hays, the editor of the *American Journal of Medical Sciences*, by whose labors, professional accomplishments, and excellent judgment, the leading medical journal of this country was established. Having assisted Dr. Chapman in editing *The Philadelphia Journal of the Medical and Physical Sciences*, the motto of which was the ill-natured quotation from Sidney Smith, "Who reads an American book?" Dr. Hays established, in 1827, the "*American Journal of Medical Sciences*," which to this day, both in this country and in Europe, is admitted to be, in character and ability, the first. Modest and unassuming, he scorned the arts by which many seek prominence, and during a long and very busy life, sustained the character of a high-toned and honorable gentleman. To him are we chiefly indebted for the preparation of the Code of Ethics of this Association, which some of our physicians, from motives we cannot appreciate, would be willing to mutilate or destroy.

To another fellow-graduate I may with great propriety allude—Dr. Samuel Henry Dickson, one of the most accomplished scholars, both in medical and miscellaneous literature, it was my good fortune to know. Having obtained, by his extensive acquirements, sound judgment and high character, the first position in his native city, Charleston, South Carolina, he was elected Professor of the Theory and Practice of Medicine in Jefferson Medical College, where he lectured with distinguished ability to the close of his life.

Dr. George B. Wood, known to many of you, was graduated at the end of my first course in 1818. The possessor of an ample fortune, he devoted his wealth, his untiring industry, and his great acquirements to the promotion of sound knowledge, and the welfare of the Medical Department of the University of Pennsylvania.

In the winter of 1819-20, when I attended my second course, a change had taken place in four of the chairs at the University. Dr. Physick, in consequence of the death of Dr. Dorsey, had been elected

Professor of Anatomy, and Dr. Gibson was brought from Baltimore to fill the chair of Surgery. Dr. Cox was taken from the chair of Chemistry to teach *Materia Medica*, and Dr. Robert Hare was appointed to teach Chemistry. These changes were not very agreeable to those who, like myself, were attending their last course, as they took from the chair of Surgery that great man, Dr. Physick, and placed him in a position where he had to renew his early studies. It placed Dr. Cox in what might be called his favorite element, for there was hardly a single article of the *materia medica* from the time of Hippocrates to that day, that he did not notice in his lectures. It was very amusing to the class, after Dr. Chapman had recommended the use of a medicine as emanating from Dr. Physick, to hear Dr. Cox, a day or two afterward, taking especial pains to tell us that the remedy had been used from the time of Galen or Celsus. Dr. Hare, who never failed in an experiment before the class, had great hesitation in explaining the *rationale*, not having the gift of fluent speech. He gave an excellent demonstrative course on chemistry, particularly on the subjects of heat, magnetism, electricity and galvanism, which since his day have excited the attention of the whole civilized world. Dr. Hare was a large man, of great muscular physique, but possessing the manners and feelings of a courteous gentleman.

Dr. Gibson, whom I have referred to as coming from Baltimore, where he had acquired great reputation as a surgeon, had been a pupil of the celebrated Charles Bell, of London. At first, he read his lectures, which rendered him somewhat unpopular with the class, as his predecessor, Dr. Physick, had always lectured extemporaneously. Being told of this, it was said that he afterward committed his lectures to memory.

At the time of my attendance upon lectures, there were very few boards of examiners, and the graduating classes were generally divided into "quizzing clubs" of six students, each of whom took notes at the lectures of the different professors. We examined each other twice a week on the lectures of the three preceding days, and recapitulated on Sunday afternoon, having been told by Dr. Wistar that we could not spend Sunday more profitably than in the dissecting room. So Galen ends his book, *De usu Partium Corporis Humani*, by saying, it is an *epodos*, or a song sung standing before the altars of the gods, *Hymnis deos celebrantes*. The result of these frequent examinations was, that although we had some lazy fellows among us, every member of our class received his diploma.

With the garrulity, and may I not call it, the privilege, of your oldest brother, I present you with some of the reminiscences of my college life. Before I close this address, let me briefly call your attention to some other subjects, which, in my opinion, are of pressing importance.

Let me impress upon the mind of every member of the profession, the necessity of strict and undivided attention to the duties of his high calling. Let no outside influence operate to interfere with these duties. When you undertake the case of a patient, your whole duty belongs to him. The intermission of a single

why he preferred scissors to the tonsillotome, but presume it was on account of the large size of the tonsils. He snipped off a portion of one of the growths, but the profuse hæmorrhage which followed prevented immediate removal of more of the mass. The first attempt, it seems, discouraged both physician and patient, and her request to leave met with but slight remonstrance.

The patient put up with the discomfort caused by the growth, until her suffering compelled her to consult a physician, who suggested the removal of both tonsils.

Using a tonsillotome, he skillfully ringed and removed a small portion of one tonsil, when, according to the doctor, blood gushed from the patient's mouth, the profuse and continuous hæmorrhage being only checked by the expenditure of much time and labor. The case was then referred to me. I found the patient's throat occupied by a remarkably enlarged tonsil. Although the fauces were roomy, but little space remained for respiration or food. The growths were paler in hue than the surrounding mucous membrane. The surface of each tonsil was roughened by numerous fine indentations. They seemed to indicate that the tonsil had undergone an irregular increase, being retarded at certain points by the fine strands of firm fibro-cellular tissue forming part of its substance. In this respect, its appearance was quite different from the familiar smooth, glandular, hypertrophied tonsil. It had the consistency of cartilage, giving a harsh, gritty sensation when pressed upon. I was reminded by these peculiarities, of my disagreeable experiences with the case already described. Her unfortunate history demonstrated the correctness of my observation. I hesitated to operate upon the patient by the usual method. Mindful of the efficiency of my *écraseur* in operating upon vascular tumors of the nares, I selected it as for removing the tonsils without. The right tonsil was snared with No. 5 piano wire, and severed in a line with the pillars of the fauces. More than three hours were occupied in its removal, and when the divided mass was drawn from the throat, not a drop of blood escaped from the wound, nor was the saliva even tinged with blood subsequent to the operation. The patient declared she suffered no pain, and only complained of the operation being tedious. She was away from the city for three months. On her return, I was unable, by looking directly into the throat, to discover a trace of tonsillar tissue on the side from which the growth was removed. Absorption had left a sulcus between the right faucial pillars. The patient was exhibited to the students at the University Medical College, and the left tonsil eradicated in the same manner.

I do not desire to play the part of an alarmist in discussing hæmorrhage after tonsillotomy. Nevertheless, I believe the subject demands serious attention, in view of the number of deaths recorded as resulting from the use of the knife, taken into consideration, with the natural hesitancy shown by some physicians to publish unfortunate results, which is not a mere surmise, but an inference based upon the experience of surgeons, communicated in a spirit of confidence, the question of the possibility of distinguishing between the hæmorrhagic and non-hæmorrhagic

tonsil naturally suggests itself. I believe such a distinction can be made in many cases by carefully comparing the appearance of enlarged tonsils, giving diverse results when operated upon. The hard or scirrhus tonsil just described, differs in many respects from the soft or malachotic gland. The malachotic, hypertrophied tonsil has a smooth surface, is often lobulated, being soft to the touch, and is usually of a light-pink color. The scirrhus hypertrophied tonsil has a rough, irregular surface, is exceedingly compact, gives a harsh, cartilaginous sensation when touched, and has a somber hue. For the removal of the first-mentioned variety, I would give preference to the tonsillotome. Any hæmorrhage occurring while these tonsils are excised by the guillotine soon ceases. In this respect, they resemble the adenoid hypertrophies found in the vault of the pharynx. The scirrhus tonsil, on the contrary, bleeds profusely when incised. The analogy it bears in this respect to firm fibroid tumors is quite striking. My *écraseur* offers a safe, simple and reliable means for the removal of these dangerous tumors. I would discourage the use of all sharp instruments in operating upon scirrhus tonsils, believing the histories of serious or fatal hæmorrhages occur as a result of the indiscriminate use of the knife. I would recommend the knife for excising the smooth and somewhat compact, enlarged gland known as the hyperplastic tonsil. Indeed, a knife when it can be safely used, is to be preferred to the *écraseur* since it expedites the operation and only causes momentary pain. The scirrhus tonsil is often associated with a syphilitic history. The objection raised that the operation is inconvenient on account of the large expenditure of time, has been overcome by a very simple modification of my *écraseur*. I present to your notice this simple method of removing enlarged tonsils, as its safeness and efficiency have been tested upon a number of cases with unvarying success. You will find my distinction useful, if carefully studied. The discrimination is easily made, and must prove valuable as giving confidence to the operator.

ON THE TREATMENT OF OTORRHOEA WITH ANTISEPTIC POWDERS.

BY DR. H. GRADLE.

Although the antiseptic treatment of purulent inflammation of the middle ear has been introduced but some three years, it has now been adopted by almost all, if not all, specialists. Scarcely any number of an otological journal can be examined without finding some testimony as to its efficacy. But by the general practitioner, the method has not yet been practiced to any extent, at least, I must infer this from my own experience with the patients referred to me, and I can find a reason for it in the scant allusions to it in medical journals. Moreover, all but the most recent text-books scarcely mention it. However, this article is not merely intended to corroborate the experience of other specialists, but to describe the use of some new substances for this purpose, and an improved method of applying them, both of

which have considerably shortened the time of treatment of such cases in my hands

The antiseptic treatment appears particularly applicable in suppurative inflammation of the middle ear. For, on account of the anatomy of the cavity, the treatment can be carried out very conveniently, while, on the other hand, without it, the conditions are especially favorable for the decomposition of pus. For we have here a cavity with numerous recesses in which the pus can stagnate, where it is kept warm and fluid, and where the air can reach it to deposit in it all floating germs. In order to counteract these noxious influences, the ear, after cleansing, is filled with some antiseptic powder and plugged with absorbent cotton. The efficacy of any antiseptic treatment shows itself at once in deodorizing the secretion, which in most chronic cases, is very fetid. But it would be a decided mistake to seek the efficacy of an antiseptic dressing only in its power to check decomposition of the secretions. The real object is to keep out all micro-organisms, and the ideal antiseptic is the one which can, by its gradual absorption, aid the tissues in their struggle against the parasites, which have already invaded them. For the researches of Ogston,¹ and later those of Uskoff and of Orthmann, have established definitely that suppuration, unless produced by chemical irritants, is always the result of parasitic invasion of the tissues, especially by micrococci.

The treatment I advocate in this paper I have tested in fifty cases of otorrhœa, of which I have a complete record, and about the same number of instances of which I have no—or, at least, no satisfactory—notes, or which are still under treatment. The impressions made on my memory by the latter series fully corroborate what I can learn from my tabulated records. The great majority of these cases were treated by insufflation of powdered boracic acid. Since it is the object to bring the powder in contact with the mucous surface, it is best to begin with cleansing the ear thoroughly. A rubber bulb syringe with a very small nozzle saves much time and discomfort, when compared with the use of dry cotton alone for this purpose, though after syringing I dry the parts with absorbent cotton on a probe, or cotton-holder. The boracic acid should be as finely pulverized as possible, since large crystals may irritate mechanically. With this precaution, its application never pains, though it may cause some noise in the ear. Since it is the intention to keep the inflamed surfaces covered with the powder, or its concentrated solution, the application should be repeated as often as the discharge has carried off the excess. Once a day in cases of profuse secretion up to once every four or five days, when the disease is near its end, has been found satisfactory. I have never seen any retention of pus caused by even large quantities of the powder. Formerly, I have blown the powder into the meatus through a glass tube, which is more convenient than the insufflators in the market. But, with the object of carrying the finely divided powder into all the nooks and corners, I have constructed a very simple powder bottle, through the cork of which two tubes are passed. One of these,

connected with a rubber bulb, terminates in the middle of the bottle, with a fine opening. The air, blown through, whirls the powder about, and a sufficient quantity of this fine dust is carried with the current of air through the other tube, which reaches only to the lower end of the cork. Slender silver tubes, bent properly, can be attached to this outlet in order to be passed through a narrow perforation of the membrana tympani, but if the perforation be not too small, it is not necessary to introduce the tube far into the meatus. Messrs Sharp & Smith, of this city, have lately put up these powder bottles for me in a more elegant and durable shape, and with attachments for the nares and larynx. My expectation of reaching the diseased surfaces better than formerly with the all-penetrating cloud of fine dust poured forth by this simple apparatus, has not been disappointed. When the eustachian tube is fully pervious, the patient often gets a taste of the remedy in the mouth, on blowing it into the ear. Since the apparatus is always filled, it saves much time in the treatment of a number of patients in succession. It is also of decided convenience for the treatment of other mucous surfaces, for instance, the nose, or larynx, as well as for the surgical employment of iodoform. Since I have begun using this apparatus, the average time required for the cure of otorrhœa by means of boracic acid has been decidedly lessened.

The duration of the treatment of otorrhœa varies very much. Among my recorded cases I have succeeded three times in arresting a long-standing discharge by a single application of boracic acid. The majority of patients, however, required from five to twelve applications, corresponding to eight days to three weeks time. A few have dragged along for two to four months, but in these instances the treatment was sometimes interrupted by irregularity on the part of the patient. In all my experience I have only seen one case which I had to declare incurable after several months treatment. It was a young man, who had bilateral otorrhœa since childhood (after scarlet fever), with complete loss of the membrane and the ossicles in both ears, but with very nearly normal hearing power. The very fetid discharge was diminished, but could neither be checked entirely nor deodorized by boracic acid, iodoform, tannic acid, carbolic acid, alcohol, or nitrate of silver, but, at that time, I did not yet use my present powder blower. In all my instances the effect of boracic acid was noticeable on the first application, by lessening the discharge and generally deodorizing it. I have occasionally filled the ear with a 4 per cent solution of carbolic acid, when boracic acid failed to disinfect it at once. But this smarts slightly, and fluids kept permanently in the ear are not as pleasant as dry powders. Moreover, with the powder blower I can accomplish just as much now with boracic acid as with carbolic acid formerly. There are, however, cases in which a foul odor persists until the cure, in spite of all antiseptic remedies. I never pronounce a patient cured until absorbent cotton at the end of a probe detects no trace of moisture in the ear. When this test is applied, relapses are not common. I have altogether known only of two instances, though,

¹ Vide Gräde. Bacteria and the Germ Theory of Disease (W. T. Keener 1883.)

possibly, some may not have come to my knowledge. But relapses, improperly so called, or, rather, exacerbations of the disease, occur often, when patients discontinue the treatment prematurely.

The prognosis in the individual case, as regards the duration of treatment, is very uncertain. I know of no definite landmarks. Neither the previous duration of the disease and the character of the discharge, nor the size of the perforation and amount of destruction seem to determine the persistence of the purulent inflammation under antiseptic treatment. Even the presence of complications, like polypous growths or granulating erosions, does not necessarily prolong the time of treatment.

Of other antiseptic agents, iodoform has been much lauded by American authors, but much less so by European otologists. As long as I contented myself with simply filling the meatus with this powder, I found it quite unreliable, and never as prompt as boracic acid, but since I distribute the powder in such a state of fine subdivision over the entire surface, by means of the powder blower, its value has become more apparent to me. Yet its action is generally not as prompt as that of boracic acid, although in some few cases I have found it beneficial to substitute iodoform for other applications, when the latter had ceased to influence the disease very markedly. On the whole, I have not found the value of iodoform in otorrhœa sufficient to compensate for its odor.

The enthusiastic praise by Kocher of subnitrate of bismuth, as a substitute for iodoform in antiseptic surgery, has led me to use it in otorrhœa. Although it does not destroy the odor of the discharge as promptly as boracic acid, it lessens the secretion in a very marked manner. I have, however, employed pure bismuth but very few times, because I have found it so much more efficacious, when triturated with a one per cent of corrosive sublimate. The addition of this powerful antiseptic does not give rise to any pain, while its quantity is too slight to endanger the patient's health. I have used this mixture now in some fifteen instances, with the most gratifying results. In three cases the cure was accomplished by a single application, while in others, still under treatment, the influence was manifested by an immediate improvement, as compared with the previous effect of boracic acid or iodoform.

The cloud of dust which can be obtained with this powder is so much more penetrating than that of boracic acid, that this explains in part its superiority over the latter agent. Besides, bismuth it is claimed by Kocher and other surgeons, diminishes directly the secretion of even aseptic wounds, which I can confirm from a limited surgical use of the bismuth and mercuric chloride mixture. While it might be difficult to prove the superiority of this antiseptic powder by my limited figures, the prompt effects which I have seen of lessening and deodorizing the discharge, and of allaying the pain in the more acute instances, have led me to discard all other insufflations but those of subnitrate of bismuth, with the addition of 1 per cent of mercuric chloride.

I have tried insufflations of calomel a few times and found them nearly as efficient as the bismuth

mixture, but have feared applying it too often on account of the personal danger in inhaling the fine mercurial dust.

Not the least advantage of the antiseptic treatment of otorrhœa is its effect on polypi. Unless these are very large, so as to fill up the cavity and prevent the entrance of the powder, or so constricted at the pedicle as to render their removal very easy, there is not much object in operating upon them. Twice have I been able to check the otorrhœa by one or several applications of boracic acid, although polypous growths were present. The latter atrophied gradually afterwards. In another case boracic acid failed to accomplish this. The bismuth and corrosive sublimate mixture I have found more efficacious in this respect in the two cases which have lately come under my treatment.

Finally, I claim for the antiseptic treatment this decided advantage, that the painful, and, indeed, dangerous, inflammatory exacerbations and complications, which under other treatment, so often annoy patient and physician, are never observed with rigid antiseptic medication.

CENTRAL MUSIC HALL, CHICAGO, ILL.

RESTORATION OF A LOST CHEEK BY A FLAP FROM THE SHOULDER

BY EDMUND ANDREWS, M D, LL D,

Professor of Clinical Surgery in Chicago Medical College

This operation, so far as I know, is new, at least, I find no example of it among the works of reference at present accessible to me, and it is of importance as showing that for plastic operations on the side of the face one may use the shoulder freely as a source of flaps.

Case 11,707, *Andrew's Surgical Record*, May 18, 1882.—The patient was a young woman about twenty-two years of age. During the previous year she had received the discharge of a shot-gun close to her face, passing obliquely from the front backward and outward. The right cheek, from the angle of the mouth backward nearly to the ear, was torn away, stripping the jaws down to the periosteum. The teeth were not injured, but a few scales of bone afterwards exfoliated from the side of the body of the lower jaw. The masseter muscle was injured, but not torn away. At the time of the operation the parts were cicatrized, the lips were separated widely at the commissure, the upper one being adherent to the upper jaw near the ala of the nose, and the lower one to the lower maxilla an inch below, changing the mouth to a triangular opening. The molar teeth were exposed in the cavity where the cheek should have been.

I examined the forearm and the neck with the view of transplanting a flap from one of these places, but the patient was thin, and it was evident that there was not fat enough in either of these locations to supply the thick cushion torn from the cheek by the gun. Fortunately, the patient had a long and flexible neck, and the shoulder was very movable. By experiment, I found there was no difficulty in placing the wounded spot fairly against the top of the deltoid region by

flexing the neck to one side, and raising the shoulder to meet the spot where the cheek should be, at the same time, there was a tolerably thick cushion of fat covering the deltoid muscle

I therefore made the first operation by anæsthetizing the patient, and raising a thick oval flap from the front of the deltoid two inches wide and two and a half inches long, leaving it attached by its upper end near the outer extremity of the clavicle. This flap was washed in carbolized water, and wrapped in gutta-percha tissue, and left about a week to recover the vigor of its circulation. The patient was again anæsthetized, and the circumference of the cicatrized vacancy in the face and of the flap were well refreshed with the scalpel. Bending the neck towards the flap and raising the shoulder to meet it, the flap was turned up, and without much difficulty stitched into its place, with the free end backward toward the ear. The head and shoulder were now firmly plastered together by long and broad adhesive straps, passing around the head and face and under the axilla, reinforced by bandages crossed and fastened in proper places. At the end of another week the union was established, and I separated the flap from the shoulder and released the head from its confinement. Most of the transplanted tissue retained its vitality, but a portion nearest the mouth sloughed, and eventually came away, leaving the flap deficient in size at that part. Three weeks after the final separation of the flap from the shoulder, I separated the external angles of the lips from their abnormal adhesions, placed them together so as to make a good commissure, and filled the gap between them and the flap by sliding in other tissues from above and below.

A salivary fistula from the duct of Steno still remained near the ear, which was cured by making a free route for the saliva into the mouth, and sliding a small flap over the external orifice.

The result of these tedious labors was most excellent, and the patient recovered a reasonably full and rounded cheek, and a comparative comeliness of countenance.

No 6, 16th street, Chicago

MEDICAL PROGRESS

MEDICAL NOTES ON JAPAN. Prof Ch Remy (*Archives Generales de Medicine* Paris March, 1883) gives an interesting account, the results of his observations in Japan, in which he details, first, the mode of nourishing and raising children. They are nursed by the mother to the age of five and six years—artificial nursing is unknown—but in the second year they are given also rice, boiled in meat juice, fish and eggs. The women bear this prolonged lactation exceedingly well. They are small in figure, and their breasts before pregnancy present nothing peculiar, after pregnancy they are capable of producing an incredible amount of milk, and pathological galactorrhœa is quite common. In one case, which he saw in hospital, a young woman gave from her breasts over twelve and a half pints of milk in a

day. Their diet during lactation consists of a considerable quantity of rice, herbaceous and farinaceous vegetables, fish, a great deal of tea, and certain popular drugs, forty or fifty times a day is tea made in a Japanese household.

This prolonged lactation may be the cause of the small degree of fecundity noticeable in the statistics, the women remain fifteen and seventeen months without menstruating. There are seldom more than three or four children from one mother in the family. The children are very healthy looking, and escape the gastronomical disorders. Nevertheless the mortality is very great, and they succumb principally to chest and head troubles. Hydrocephalus is very common, but rachitis does not exist in Japan.

The new-born child is not placed in swaddling-clothes, its only bandage is that around the umbilicus, and the children of the poor are frequently almost naked summer and winter. When they are dressed they wear robes with very large sleeves, open in front, and gathered around the waist by a belt, leaving naked the upper part of the body and thorax, and uncovering the legs in many instances. This is a very insufficient protection against the cold, for which the houses are poorly provided. The child's head is sometimes covered by a little red bonnet, but most generally remains uncovered, and is close shaven. It is carried on the back of the mother, between the folds of her garments, and held in place by a band, so that while the lower part of the body receives the maternal warmth, the head and superior portion of the trunk remain exposed nearly naked to the changes of the temperature. It lives in this way, on the back of a carrier, almost until it is large enough to in turn take a younger child upon its own back. This mode of carrying children sometimes produces deformities, and is, therefore, described. The women wear a large sash over their clothing which, after four or five turns around the body, is tied in voluminous knot over the loins, over the shoulder is placed a loose garment, with sleeves, and open in front. The child is placed within the folds of this latter, is seated just above the knot of the sash, its legs about the body of the mother, and its belly against her back, then she folds this garment across her chest. The band which retains the child in position is made of thick stuff in folds, and so arranged as to pass under the buttocks of the child, then diagonally across the chest of the mother to the left shoulder, then across the back, and under the two arms of the child, to pass over the right shoulder of the mother, the two extremities being knotted together and forming a figure 8 over her chest. This frequently results in a lateral depression of the sides and a corresponding projection forwards of the sternum, which is frequently bent at one of its articulations, not at all resembling rachitis, but due to the pressure of that part of the bandage which passes under the arms and compresses the sides, in most cases, as pressure is relieved and age advances, the deformity disappears.

The mode of shaving the head, which is gradually allowed to grow hair as a tonsure, exposes the uncovered part to the rays of the sun, which are very powerful in their heat even in winter. It certainly

is a protection against that dirt which is so often the origin of impetiginous eruptions and of glandular engorgements, in the older children, when the hair is allowed to grow more freely, these affections become more common. Remarkable for the roundness of their faces, their limbs in contrast are very slender, and this difference prevails in adult life.

With the girls, menstruation is established at fourteen or fifteen in a perfectly natural manner, they are generally married at a very early age, and thus escape those troubles of nutrition and innervation, as chlorosis and hysteria. Tuberculosis is hereditary, or acquired, affecting all ages. There is a marked want of proper exercise. The buildings are not well adapted to keep out the cold, they are heated simply by braziers, and the dress is but a poor protection. The chemise is extremely rare, a simple piece of stuff being worn around the waist and half way down the thighs; buttons are unknown, the robe being simply crossed in front, leaving uncovered the upper part of the chest, and at each movement a part of the legs. The men sometimes wear cotton drawers. The women, in the country, wear a somewhat similar garment, in the city, their legs are naked, a simple linen sock covers the foot to the ankle. The air penetrates to the skin through the wide sleeves.

Dr Baelz, in 1877, discovered a parasite—the *Distoma pulmonale*—which makes the periphery of the lungs its habitat, forming a cavity connecting with the neighboring bronchi by minute openings, and producing a constant cough and recurring hæmoptysis. The egg of this parasite is studied quite satisfactorily in the sputa. With this hæmoptysis the health seems to be well preserved, and there is an absence of thoracic signs corresponding to tuberculosis. The parasite itself has been but rarely studied owing to the difficulties of making post-mortems, the religious belief of the Japanese being strongly opposed to it. Cobbold describes it as found in the island of Formosa, under the name of *Distoma nigeri*.

Dr Baelz also describes two parasites peculiar to the liver, *Distoma endemiumhepatis* and *Distoma innocuumhepatis*. The first occupies the vesicular walls, or is free in the biliary canals, it produces inflammation, enlargement, cachexia and dropsy. This parasite is limited to those regions where the water drunk passes through the rice fields. The second variety is sometimes found in great quantities in the biliary passages, but without apparent effect.

As regards the nervous system, there is a singular insensibility to temperature, the courier will travel with naked legs at 24° F, while the baths are habitually heated to 122° F. There is, also, an apparent insensibility to pain, which is the result of education, a stoical or Spartan philosophy. The Japanese, however, have a great tendency to collapse, and it is difficult to arouse the nervous system during convalescence. There is a remarkably large number of blind persons in Japan, the result of hydrocephalus, syphilis, small-pox, and badly-treated conjunctivitis. One common cause of mental derangement is the readiness in which divorces are obtained, and the women subjected to humiliation and reduced to misery.

The small-pox has made terrible ravages in Japan,

and vaccination has proved most efficacious. It is now obligatory, and the government in 1874 established a vaccine farm, which is carefully supervised. In 1824 Von Siebold first practiced this method in Japan, in a limited space and at a considerable risk to himself, not being supported by the authorities. After his departure, the virus was taken from arm to arm, lost its efficacy, and fell into disuse. In 1848 a terrible epidemic ravaged the country, and in 1849 Mohnike recommenced to vaccinate. He was supported by the government, and used fresh lymph from Java, but after his departure the arm to arm process was again put into practice, and again all confidence was lost. Now, since the appearance of the United States squadron under Perry, in the Japanese waters, the former strict objections to foreign customs have been relaxed, and Japanese physicians, who have studied with the Dutch, reorganized permanently the system of vaccination.

A CASE OF CONTINUOUS FLOW OF MILK.—Dr Gomez Pamo, gives, in the *Anales de Cirugia*, in *La Revista de Ciencias Medicas*, in Barcelona, the following.

A woman, married at sixteen years of age, whose menses, established at fourteen years, continued without interruption until the first month of marriage, when she became pregnant. After delivery, lactation was established, and continued for twelve months, without any appearance of the menses. Becoming again pregnant, she weaned her child, and this repeated itself fourteen times, without any complication. She nursed each of her fourteen children up to the time that she felt herself again pregnant. During her pregnancies the flow of milk diminished somewhat, but never disappeared entirely. Immediately after delivery, she gave the breast to the infant. The milk was abundant and of good quality. All the children were very robust, two of them having been born prematurely. During all this time, that is, from the first month after marriage to the present, seven years after the birth of the last child, the menses have not reappeared. She weaned her last child five years since, but the flow of milk has not diminished, in spite of all treatment, it is abundant and of good quality, and the breasts have to be drawn frequently to relieve the pain caused by tension.

The woman is robust, muscular, intelligent, of a nervous temperament and of a lively character, occupied in housekeeping—(*Journal d'Accouchements*) *Archives de Tocologie des Maladies des Femmes*, March, 1883.

STRAMONIUM POISONING.—Dr H. F. O. Morsly, the French sanitary physician at Mecca, in the *Alger Medical* for May, describes briefly twelve cases of poisoning by the datura stramonium, or, as the Arabs call it, tartora. It seems that in Mecca, the grocers are also physicians and apothecaries, and that this drug is most commonly used as a poison. At the time of the pilgrimage to Mecca, when some 100,000 individuals from all parts of the world crowd into the city, the criminal portion of the inhabitants use the drug, by enticing the stranger to eat with them, they

serve up, cooked with the food, the leaves, root, stem or grains of the *datura stramonium*. When the poison begins to work, they rob them, and leave them in delirium or coma. October 18, 1882, five days before the pilgrim celebration, Dr M visited the Turkish hospital at Mecca, where he found six persons from Morocco, completely under the influence of violent delirium, and presenting all the symptoms of intoxication from a stupefying poison, dilatation of the pupils, dryness of the throat and mouth, involuntary movements of deglutition, and a constant movement of the jaws, ardent thirst, with dysphagia, pulse and respiration accelerated, temperature slightly elevated, pain in the head, with movements, carphologia, the legs vacillating, bending, and not able to support the patient, who appeared to be drunk. The voice was hoarse, sometimes complete aphonia, and with one imitating the various cries of animals. The movements of the heart were intermittent, sometimes suspended, and seemed about to bring on the syncope which precedes death.

The next day, he found that six more among the pilgrims were attacked, two of them had to be carried on litters, while the remaining four walked staggering along, vociferating unintelligible words.

Two days after, when visiting these twelve cases of poisoning, to whom emetics, cathartics, and strong infusions of coffee had been given, he found them as calm as possible, they had no knowledge of what had passed, were very much mystified at finding themselves in a strange place, and at being asked questions upon matters concerning which they were entirely ignorant. Several of them still suffered slightly from mydriasis. Of 51 cases of poisoning by this drug collected in one year at the Bombay Hospital by Dr Girard, only one terminated fatally, and only four presented very alarming symptoms.

FORCIBLE DIGITAL DILATATION OF THE PYLORUS FOR CICATRICAL STENOSIS—Prof P Loreta, of the University of Bologna, has operated successfully on two cases, as reported by Dr A Hubert (from *de Med Brussels*, April, 1883).

The first case was a guard on the railroad, aged forty-seven, not addicted to excess of any kind. In 1868 he suffered from disordered digestion, obstinate vomiting and epigastric pains. This was relieved by the use of the milk cure, but in 1875 he suffered from hæmatemesis to such an extent that he was nourished for a time entirely by nutritive enemata. Again relieved, in 1878 he suffered from an intense and fixed pain in the epigastric region, with incessant vomiting of bloody alimentary substances. The diagnosis of ulcer of the pylorus was made, relief came after three months' treatment by the milk cure. In 1882, after suffering for some time from the old pain, acid eructations, pyrosis and vomiting, he entered the hospital, and September 13 could no longer retain anything on the stomach. Milk alone was kept down for ten or fifteen minutes, but was then vomited, and the patient himself observed an obstacle in the right hypochondriac region, which prevented the passage of food. Examination of the abdomen by inspection and percussion showed the lower border of the stom-

ach on a level with the umbilicus, and a diagnosis of cicatricial stenosis of the pylorus, the result of ulcer, was made.

September 14, the operation was performed in a small room, at the temperature of 77° F, with antiseptic precautions. After emptying the stomach by the stomach-pump, the surgeon made his incision into the walls of the abdomen on the right side, parallel with the costal arch, and about a third of an inch below, to the length of about six inches. He drew the stomach through the wound and opened it. Introducing the index finger of the right hand, he found that he could but with great difficulty pass it through the pyloric orifice. After much time and labor, he forced both index fingers through the opening, and then practiced forcible dilatation, as is done with the anus, until he felt the pylorus yield to the pressure. The resistance offered by the pylorus seemed to be due to a fibrous hardness, and the muscular fibers seemed to be considerably hypertrophied. He was enabled to separate the two fingers to a distance of three inches, they had been bathed in a carbolized solution before their introduction, and on removal showed nothing peculiar. He applied the silk suture to the stomach, returned it, and closed the abdominal wound by the interrupted silver suture, using Lister's dressings. The operation took thirty minutes to perform.

The patient suffered no pain, but desired food. He was given, besides pieces of ice, the yolk of an egg in wine. He had neither fever, hiccough, nausea or vomiting, but some eructation. The dressings were renewed twice. On the sixth day, two of the sutures were removed, and the wound was found in good condition, with, for the greater part, union by the first intention. On the eleventh day, the seven remaining sutures were removed. Since the operation, the patient has never experienced any pain in the stomach, except one day after soda biscuit had been given to him. His appetite was always good, the third day, he ate some chicken, and drank some wine, the sixth day, bread was added, and the eighth beefsteak, and from that time on, his daily ration comprised beefsteak, two pieces of chicken, bread, and a moderate quantity of wine. His cure was complete on the fifteenth day. Before the operation, September 12, he weighed 117 lbs. On October 12 he weighed 162 lbs. The last news from him, January 10, was that he continued to enjoy perfect health.

The second case was that of a young man of eighteen. In 1876 he ate immoderately of bread, was taken with copious vomitings, and discharged the food he had taken, already somewhat altered. The following week this was repeated twice, and for two years this continued every week. Once only, in 1878, a slight hæmatemesis followed the efforts at vomiting, and at that time vomiting occurred four or five times a week, with obstinate constipation. This condition of things increased until December 17, 1882, when he came under the notice of Prof Loreta. For three years he could take no fruit, as it disturbed the stomach. At this time, much emaciated, nearly every day, for hours of the ingestion of food, vomiting occurred, leaving him with a ravenous appetite.

It was preceded for two hours by bitter cructations, intense thirst, a sense of weight in the epigastrium-borborygmus, and vermicular movements in the stomach, which commenced at the greater pouch, passed to the pyloric portion, were arrested, and recommenced returning to the starting point. On physical examination, the stomach, when nearly empty, exhibited in profile a tumefaction on a level with the costal arch, and corresponding to the inferior parasternal and mamillary lines, occupying the whole of the epigastric region, extending below to within two finger breadths of the umbilicus in the median line, in the left hypochondriac region, near to the mamillary line. When the stomach was filled with food, the tumefaction was much greater, its lower limit was increased about an inch. Then the vermicular movements extended from the left to the right region of the stomach, forming very marked protuberances, and evidently arrested for a longer time at the right hypochondrium than at the left. The median line of the stomach seemed to form a furrow which intercepted these protuberances and prevented their complete development in that region. The diagnosis was made of *stenosis of the pylorus* due to the formation of submucous exudations and accompanied with dilatation of the stomach.

On December 22, 1882, the operation was performed with the use of chloroform, and the most scrupulous antiseptic precautions. An incision of nearly six inches was made through the abdominal wall, about an inch and a half below the right costal arch, and nearly parallel with it. After carefully providing against hæmorrhage, the peritoneum was cut through, and a search made in the abdominal cavity for the pyloric region, which, on account of the dilatation of the stomach, had been crowded against the vertebral column. Seizing a fold of that region with the fingers, it was given to an assistant, and an incision made through the wall of the stomach nearly six inches, and in a direction oblique to that of the wound in the abdomen. Introducing the thumb and index finger of the right hand into the stomach, two plumb stones were withdrawn, which were pressing against the pyloric orifice, the edges of which were much thickened, and the orifice narrowed. These plumb stones, according to the patient, had been there for three years. After several attempts, first the index finger of the right, then that of the left hand, were introduced, and with the use of considerable force, the orifice was dilated to the extent of about two inches, until the fingers felt a peculiar crackle from the torn tissue. The walls of this greatly-dilated stomach were normal, with a fine healthy rose tint. The lips of the wound in the stomach were united by eight sutures, and the abdominal cavity closed by ten metallic interrupted sutures, while antiseptic dressings were applied.

After the operation, the patient progressed satisfactorily, there was no fever, the number of pulsations and of respirations, which were slightly augmented during the operation soon became normal, on the day succeeding the operation, the patient desiring food was given a pint of milk and a small quantity of egg beaten up with wine, and he digested this per-

fectly. The third day he took beef soup, with two eggs, notwithstanding the daily increase of diet, on the sixth day his hunger was so great that he was allowed in addition to eat chicken, and on the eighth day he digested readily a beefsteak and some chicken with bread, and drank a pint of milk and nearly a pint of wine. During the first few days enemata were used, producing liquid stools, but they soon became of a proper consistency, and passed without the aid of medicine. The first dressing was not removed until the sixth day. The wound was found in excellent condition, on the ninth day the second dressing was removed, when the metallic sutures were withdrawn, and adhesion was perfect. From this time dressings of iodoform were used until the nineteenth day, when cicatrization was complete. The thirty-fourth day after the operation, the patient was in excellent health in every respect.

DISPLACEMENT OF THE HEART BY VIOLENCE, WITH DISLOCATION OF THE CLAVICLE AND OF THREE RIBS FROM THEIR CARTILAGES—September 11, 1882, p. 7 T. P., æt. 19, as injured by the fall of a wall against which some iron was stacked, admitted into Wolverhampton and Staffordshire Hospital, suffering from the following injuries. The sternal end of the left clavicle was dislocated upwards, forwards and inwards, dragging the clavicular portion of the sterno mastoid in front of the sternal portion. The third, fourth, and fifth left ribs were separated from their cartilages, and on the front of the chest their extremities formed prominences, over which the skin was tightly stretched. The heart was displaced, downwards and to the left, and there was a diffused impulse in the fifth and sixth spaces external to the nipple.

The action of the heart was tumultuous, dyspnoea, anxious expression, hands and feet cold, trace of albumen in urine. The clavicle was reduced with ease, ribs partially replaced. Six months later the left cavicle was loosely attached to the sternum, and the left shoulder had fallen slightly. At the junction of the third, fourth and fifth left ribs, with their cartilages there were palpable prominences. The heart was still displaced downwards and towards the left, and there was a diffuse cardiac impulse below and outside the nipple. The patient had a little pain in the region of the heart, and said that "it catches him like a stitch if he walks fast." Exertion caused palpitation and dyspnoea, but a distended stomach, which at first increased the severity of the chest symptoms, no longer seemed to cause discomfort.—*Dr W. H. T. Winter in Dublin Jour. Med. Science, May, 1883*

THE EFFECTS OF TOBACCO SMOKING IN CHILDREN.—Dr G. Decaisne, in a paper read before the Paris Société de Médecine Publique, gives observations upon thirty-eight children, between nine and fifteen years of age, where decided effects were produced in twenty-seven.

Twenty-two had disturbances of the circulation, bruit de souffle in the carotids, palpitation of the heart, difficulty in digestion, indolent intelligence and a decided taste for strong drinks.

Thirteen had an intermittent pulse

Eight showed a notable diminution of blood corpuscles

Twelve had frequent attacks of nosebleed

Ten were restless in their sleep with nightmares

Two showed slight ulcerations of the buccal membrane, which disappeared promptly on their giving up smoking for a few days

In one case pulmonary phthisis seemed to have resulted from a profound alteration of the blood due to the long continued use of tobacco

In eleven children who gave up smoking entirely, with six these symptoms disappeared in less than six months, three still suffered in a minor degree at the end of a year

He concludes, as the result of his observations collected through twenty years, that the pernicious effects of smoking upon children are incontestable. That it produces intermittence of the pulse, alteration of the blood, and the principal symptoms of chloro-anæmia, pallor of the countenance, emaciation, bruit de souffle in the carotids, palpitation of the heart, diminution of the normal quantity of the blood corpuscles, and difficulties of digestion. That the mental faculties become sluggish, with a fondness for strong drinks. That the ordinary treatment for chloro-anæmia produces no effect while the habit continues, and, finally, that with those children who are without organic lesion, all these disorders disappear promptly and without leaving any traces behind, when the habit is discontinued.—*Revue d'Hygiene, March 20, 1883*

THE THYRO CRICOID MUSCLE—This muscle, known in our anatomical text books as the crico-thyroid, was given the name of thyro-cricoid by J. Casserio to accord with its functions, but Santorini (*Obs. Anat. Sugd., 1739*) applied the term crico-thyroid because the thyroid cartilage is more moveable than the cricoid, and this name has been adhered to down to the present day. Its anatomical relations have been well studied, but its physiological action has not been properly appreciated, if we accept the researches of Dr. Martel, as given in the *Archives de Physiologie*, Paris, March 15, 1883. He finds in phonation first the action of the thyro-arytenoid muscles in bringing the arytenoid cartilages together, the vocal apophyses touching each other, and the vocal cords, while approximating each other, still leaving a fusiform space between them, thus making the thyro-arytenoid muscle *the preparatory muscle to phonation*. Second, in order to produce the sounds of the gamut, a factor must be introduced which will vary at will the length, size and tension of the vocal organ, which he finds in the thyro-cricoid muscle as *the phonator muscle par excellence*. To support this he performs experiments which prove conclusively, to his mind, that the cricoid alone in the mobile cartilage. He places two light pieces of copper, armed with pens for registering on the Marek cylinder, one on the middle portion of the anterior surface of the thyroid cartilage, and the other on the inferior border of the cricoid cartilage, and the consequent registration shows that during respiration both cartilages, remain motionless, in

forced respiration, both cartilages become elevated in unison, in phonation the cricoid alone is elevated, which becomes more decided as the note is higher in pitch. In support of this he cites Sonnet's experiments of paralysis of the muscle in question by division of the external laryngeal nerve, experiments which, repeated by Rochefontaine in the dog, have produced the same result, i. e., hoarseness of voice, which was relieved by using the fingers to replace the muscles, and by bringing the cricoid in closer approximation to the thyroid, the animal was enabled to make sounds higher in pitch.

Women suffering from hysterical aphonia are nearly all affected with paralysis of the thyro-cricoid. Its superficial position accounts for its being readily influenced when one "catches cold," and for its ready response to the use of electricity in relieving aphonia. He concludes

1st That the thyro-cricoid muscle is the phonator muscle par excellence, that it is the muscle of the singer, of the orator, that its duty is to regulate, by its contraction, the length the size and the tension of the membranous stop or pipe.

2d That the paralysis of this muscle produces aphonia or hoarseness of the voice, that is to say, an impossibility on the part of the patient to emit any other than the lowest notes, and that this paralysis is characterized by a fusiform appearance of the glottis in the efforts at phonation.

BI-CHROMATE OF POTASH POISONING—A young man æt. twenty-two swallowed a lump of chrome (the purified salt) in the solid form, equal in weight to 3½, then took a fifteen minutes walk, at the end of which time he felt lightness in head, great heat in stomach, glow of heat all over body, followed by a cold sweat, nausea, free vomiting, agonizing pain in epigastric region, giddiness, specks before the eyes and loss of power of the legs (complete power in arms), intense thirst, rigors and coldness of the whole body. He was taken to hospital, and seen within two hours after swallowing the poison. Pupils slightly dilated, face pale and extremely cold, pulse feeble and fluttering, no vomiting, but intense pain over stomach and great depression, no cramps or diarrhoea, a degree of stupor, but answers questions fairly well. Sensibility to touch and pain well-marked.

Treatment—A full dose of sulphate of zinc, washing out the stomach with tepid water by means of the stomach-pump till the fluid was colorless, subcutaneous injections of 20 m. sulphuric ether. Covered with warm blankets, hot bottles to feet and sides, mustard over stomach. Gave tepid coffee, diluted with milk and with a good deal of brown sugar—rejected at once. Then gave milk mixed with lime-water, and ten grains of nitrate of bismuth. This was retained. Barley water was given as a drink, and the patient was ordered a milk diet with lime water. He took the poison at 5 P. M., and received his medical treatment first at 7 P. M., slept fairly well that night, and in the morning every symptom had disappeared, except a slight soreness of the mouth. Perfect recovery. The fact of having taken food about an hour and a half before taking the poison, and of vomiting

part so early, aided materially in bringing about the favorable result. The urine was examined with nitrate of silver, acetate of lead and sulphuretted hydrogen, without results. Bichromate of potash affects workmen engaged in dyeing by acting as a caustic to slight abrasions of the skin, producing a tough slough, followed by an ulcer with hardened, cup-like border. They may gradually extend deeper and deeper, until they eat their way into the bone. Attacks of conjunctivitis are also of not uncommon occurrence.

Brief of notes of Edward Orr Macniven, M B, *Glasgow Med Jour*, May, 1883

ATROPHY OF THE BRAIN FOLLOWING THE AMPUTATION OF A LIMB—M Bourdon reports a case to the Paris Academy of Medicine (*Seance du Mai 5, 1883*), in an old soldier, who at forty years lost his left arm, and who died at the age of seventy-three from cerebral meningitis. The brain was carefully examined, and the results are carefully given, with a summary that demonstrates, in addition to six other observations by the same reporter, that the amputation or arrest of development of a limb, produces consecutively an atrophy of the motor zone of the brain, both anterior and posterior to the fissure of Rolando. It proves, further, that the lesion consequent upon functional defects, and ordinarily confined to the cerebral cortex, can extend secondarily to the white substance subjacent to the corpora striata, to the optic thalami, and to the lateral portion of the medulla. In this case, paralysis of the left leg came on gradually in the later years of life, without any accompanying cerebral symptoms, which was attributed to an extension of the atrophy of the brain, favored, perhaps, by the advanced age of the patient, as cerebral atrophy is such a common alteration among old people.

AN ELECTRIC LIGHT FOR MEDICAL USES—Dr Nelot, of Rouen, exhibited before the Academy of Medicine, Paris, a so-called photophone constructed by M. Trouve, consisting of an electric light enclosed in a metal cylinder, between a reflector with condensing lens, which, being very small and light, can be worn on the forehead like the mirror of the laryngoscopist, or fixed upon an upright placed on the table, arm of a chair, or other convenient point of steady support. The light is very strong, and is derived from a pile of super-saturated bichromate of potash. It can be used for several hours without renewal.—*Journal de Medicine et de Chir Prat*, Paris, Mai, 1883

THE RELATIONS OF MONOPLÉGIA OF THE LOWER EXTREMITIES WITH LESIONS OF THE PARACENTRAL LOBULE—Dr Ballet, in the *Archives de Neurologie* (June 15, 1883), gives the notes of four cases—the first, at 29 years, of a monoplegia of the left leg, of three months standing, where the left arm became gradually involved, and, on post mortem examination, the lesion was found to be on a level with and bordering upon the lobule paracentral, consisting of a tuberculous infiltration which penetrated the gray substance and involved the white matter. One im-

portant symptom in this case was the *absolute integrity* of general and special sensibility.

The second, in an old person, was a case of monoplegia of the left lower leg, with simply a gelatinous consistence to the paracentral lobule.

The third, at 27, was monoplegia of the left leg, followed by the involving of the left arm, and resulting in hemiplegia in a case of pulmonary tuberculosis. The lesion here was more extensive, but also involved the paracentral lobule.

The fourth case was one reported by M. Jean, March 17, 1882, to the *Soc Anatomique*. There existed monoplegia of the right leg, with as a lesion tubercular meningitis, with adhesions to the left paracentral lobule.

A NOVEL MODE OF CLEANSING THE VAULT OF THE PHARYNX—Dr John O. Roe in the *Medical Record* (June 9th) describes a case of chronic nasal catarrh, where the mucous discharge becoming dried down, the patient removed the crusts readily with the tip of his tongue from the posterior nares and vault of the pharynx. If a probe was passed through the nostrils to their posterior opening and further, he could throw it forward nearly out of the nostrils, by passing his long and rather slender tongue up behind the palate and out of sight.

DESTRUCTIVE DISEASE OF THE KIDNEYS FOLLOWING URETHRAL STRICTURE—Case 1. J. B. White, at 26, seen first May 6, 1883, when he suffered from retention of the urine. Largest sized catheter that could be used was No. 4 English, which evacuated between two and three ounces of bloody urine mixed with pus. The patient had worked to date, but had for months been complaining. The urine was ammoniacal with alkaline reaction and highly albuminous. A diagnosis of surgical kidney was made, and the patient admitted to the Baltimore City Hospital. In eighteen hours time he became comatose, dying on May 8. The autopsy showed both kidneys distended like large bladders filled with fluid, of the left nearly all kidney structure proper was absorbed, of the right a little more cortical substance remained. The ureters were dilated and sacculated, at points being fully an inch in diameter, their openings into the bladder were normal. The bladder was contracted and its walls very much thickened and rugous, containing three ounces of bloody urine mixed with pus. The prostate gland contained a large abscess (two ounces of pus), which led by a sinus to the posterior inferior wall of the bladder, and also by a small fistulous canal to the perineal junction of the scrotum. The urethra was narrowed to No. 4 English, in the lower part of the spongy portion.

Case 2. B. M., colored, at 60, brought to the hospital comatose, April 20, 1883, died two hours after admission. No previous history. On autopsy, kidneys found with capsule adherent, larger than normal, pelvis and infundibula full of pus, cortical substance had disappeared, and its place was filled by masses of organized lymph, which was also aggregated in masses throughout the medullary portion. The ureters were dilated to four times their normal

caliber and filled with pus, walls thickened. Bladder small, walls thick and rugous, and filled with pus, in its anterior wall was an opening connected with purulent reservoirs in the connective tissue of the pelvic, scrotal, and perineal regions. Prostate gland enlarged, right lobe occupied by an abscess which communicated with the urethra through the prostatic openings. The urethra, in its anterior, two and a half inches, was contracted to the degree that only the smallest filiform bougie could be passed through, behind the stricture there were three fistulæ of small size leading outward, and the urethra was much dilated.—*Dr J. W. Chambers, in the Medical Chronicle, June 1883*

THE ARSENITE OF BROMINE AND ITS USE IN THE TREATMENT OF DIABETES MELLITUS—*Dr R. H. Gilliford, of Alleghany, Pa (Medical Record, June 9th)*, combines bromine with arsenious acid in the proportion of 240 parts by weight of bromine to 99 part by weight of arsenious acid, the union takes place slowly, taking many days to pass into an oily liquid, which is soluble in water and alcohol without any apparent reaction. If water is added before the union is complete, an immediate and rapid reaction takes place, with the evolution of considerable heat, water is decomposed, and a solution of hydrobromic and arsenic acid, with a little free bromine, is formed. The complete union, before the addition of water, is much less irritating to the stomach. *Dr Theodore Clemens, of Frankfort, Germany*, has been using some compound of bromine and arsenic in the treatment of diabetes, and has reported great benefit from its use. The medical journals have called his remedy bromide of arsenic, but *Dr Gilliford* thinks it probable that it is the arsenite of bromine.

Its use in the treatment of diabetes mellitus has been followed by the most marked benefit in every case in which it has been prescribed so far, and the notes of four cases are given to sustain this statement.

THE HYPODERMIC USE OF SULPHATE OF MORPHINE—*Dr William H. Coggehall, in the Virginia Medical Monthly for June, 1883*, gives a very thorough, useful and practical discussion of the subject. He gives

1st The choice of the instrument, preferring the glass-barreled syringe, covered with a fenestrated white metal incasement.

2d Care to examine the point of the needle before using, to see that the steel or aluminum is firmly attached, it has become pulled off and left in the cellular tissues in, at least, one instance.

3d The proper cleansing of the instrument after use, as tetanus has been induced by a rusty injecting needle. He refers to the use of carbolyzed oil, which can be kept in a small vial in the instrument case.

4th Mode of preparing the injection. The prepared tablets are recommended. They are apt to become hard with age, and difficult to dissolve, but the careful warming of the solution in a silver spoon over a lamp, gas jet, or even a lighted match, will remedy this.

5th By Magendie's solution, which can be kept good for months by the addition of one grain of salicylic acid, or two drops of pure carbolic acid to

the ounce of solution. *Vidal* recommends the addition of twice as much chloral by weight as there is morphia, and claims that this mixture prevents the growth of confervæ and increases the power of quieting pain.

6th The dose he gives is from one-eighth to one-third of a grain, and considers one-eighth quite large enough for an initial dose, save in exceptional cases.

7th The combination of morphia with atropia, one grain of atropia sulphate to one ounce of Magendie, increases the hypnotic effect, prolongs and augments the power of quieting pain, diminishes the constipating effect, and diminishes the gastric disturbance and nervous prostration, but both do produce dysuria.

8th That the use of the injection as near the seat of pain as possible, hastens the immediate effect is considered probable, but that it is due more to the influence of the food acting upon the part than to the alkaloid, that before the local sedative caused by the presence of the fluid wears off, the general effect of the morphia is felt and thus the impression is kept up.

9th Is there any difference as to the locality where the injection is applied in hastening the general absorption? He cites *Kane* to the effect that "absorption from the groin and inner side of the arm rank first in point of rapidity, fore-arm next, and the thick tissues of the back last."

10th The relative innocuousness of deep and shallow injections. The only care necessary to secure its effects is to make it *sub cutaneous*. If in the skin itself phlegmasiæ are sure to follow. There are cases who cannot receive an injection into the cellular tissue without its being followed by an abscess.

11th The necessity in some cases of producing local anæsthesia by the use of the ether spray, or of ice and salt.

12th The relief of the urticaria, which sometimes follows injections, by fomentations of warm water and vinegar. The administration of potassium bromide just before the injection has sometimes prevented this annoying symptom.

The writer finds the thin, dark complexioned members of the Southern or Semitic race require more morphia than the Anglo-Saxon. He gives the following description of venous absorption. First, a peculiar metallic taste in the mouth, with an aching of every carious tooth in the head, a most intense irritation and prickling all over the body and a dark red suffusion, extreme swelling of the subcutaneous tissues, especially of the hands and face, increased heart's action, head throbbing, followed by congestive cephalalgia, which, just before the cranial vessels appear about to burst, begins to abate and the symptoms subside. In two cases he treated, the first, a man, by stripping him to the waist, and dashing cold water over the head and spinal column, the second, a woman, he treated by diffusible stimuli. He finds that a sharp pain felt on making the puncture, is indicative of injury to a vein.

Of the propriety of its use in albuminuria he cites *Loomis*, *Edes* and *Bartholow* in its favor, and *Loomis* as considering that the salt counteracts the effect of the uræmic poison on the nerve centers, producing

extreme diaphoresis and facilitating the action of diuretics and cathartics, thereby becoming a powerful eliminative agent. Administered just before the commencement of the inhalation of chloroform, it notably diminishes the irritation of the air passages, and the narcosis is prolonged with a smaller quantity of the anæsthetic, while the protracted vomiting and general depression of the vital powers, sometimes occurring as sequelæ, are very materially decreased.

In this connection, the editor of the *Planet* (May 15, 1883) insists upon the importance of rubbing in the solution, that is, after the needle has been withdrawn a small white lump is left, which should be rubbed out by degrees by gentle massage over it and in its immediate neighborhood, for ten or fifteen minutes, which he claims, adds to the rapidity of absorption and prevents scars and markings.

VIVISECTION AT THE COLLEGE OF FRANCE.—The *Gazette Hebdomadaire* (Paris) of June 1, 1883, gives us the following account of an interesting little episode which occurred, May 22, in the amphitheater of Brown-Sequard at the College of France.

Towards the end of his spring course, M. Brown-Sequard had commenced a series of experimental lessons to demonstrate some new facts of which he had previously spoken, that a general analgesia, without loss of tactile sensibility, could be produced by irritating the laryngeal mucous membrane with carbonic acid or with the vapors of chloroform, taking, at the same time, precautions to prevent the entrance of these substances into the lungs. He was preparing to examine the sensibility in a little monkey, which had been subjected to a similar experiment three days previously, but a few moments before the lesson he was about to cut the suture of a wound near the larynx, when a young woman gave him a blow with her parasol on the fingers. She was requested to retire but refused, declaring that in virtue of the law of Grammont, she had the right to prevent all cruelty against an animal in a public place. The professor having recommenced his operation, the woman attempted to strike him again, but this time her parasol was taken from her before the blow was struck. A police officer was called, and she was taken before the magistrate, where a complaint was entered against her by two witnesses. She said that M. Brown-Sequard desired to cut the vocal cords to prevent the fearful cries of the poor beast. He would have been careful not to perform such an operation, as they were necessary to give him proper assurance of the presence of sensibility in the monkey, which did not cry, notwithstanding the return of that sense. The question to be determined was to learn if the analgesia produced by the carbonic acid, which in this monkey had continued for twenty-four hours after the irritation of the laryngeal mucous membrane—still continued after the lapse of three days—sensibility had returned. This incident had its counterpart, for the following week M. Brown-Sequard took for the subject of his lesson, the usefulness of vivisections. The amphitheater was too small to hold his audience, and he received no other interruptions than repeated applause and marked proofs of the most lively sympathy.

A CASE OF FATTY DIARRHŒA.—We extract the following from an article by Dr. Algeron Wolverton, in *Canada Med and Surg Jour* for June.

Mrs. G., æt 43, multipara—addicted to alcoholism—has a bloated, puffy, appearance but gradually losing flesh, complained of occasional diarrhœa. Oct 10, diarrhœa very troublesome, four or five evacuations daily, and quite as many more during the night—said she passed a "yellow scum," which came away from her with a "gush of wind," just before her bowels were going to be moved, and which she stated floated like "grease" on what she passed in the chamber-pot. Oct 11, the doctor saw a most noisome-smelling mixture, a yellowish, greasy looking substance, very much resembling melted beeswax, occupying half the fluid contents of the chamber-pot. When first passed it was semi-fluid, but speedily became firmer and more consistent, and appeared in irregular-sized cakes, about a quarter of an inch in thickness, always preceded the fecal evacuations and was accompanied with a considerable discharge of flatus, the total quantity passed in the twenty-four hours would, at least, reach ten or twelve ounces.

The total duration of this diarrhœa could not have been longer than ten or twelve days. Fat cells were found under the microscope. Mrs. G. lost weight rapidly, with nearly total loss of appetite, but gained five pounds the week after its disappearance. No great pain, some uneasiness and tenderness or pressure in the gastric region. Liver and spleen not perceptibly enlarged. Urine free from albumen or sugar. Distaste and repugnance for fats during the diarrhœa, and never fond of fatty kinds of food. No treatment.

EDITORIAL

THE CHANGE.

At the recent meeting of the American Medical Association in Cleveland, it was decided with much unanimity to commence the publication of the proceedings and papers of the Association, in a weekly medical journal under its own control instead of in a volume of Transactions, as heretofore. The basis on which this change has been made, and the general mode of business management, are plainly indicated in the report of the Board of Trustees, which is given in full as a part of the record of proceedings, constituting the first article in the present number of the JOURNAL. As the subject has been before the Association and reported on three years in succession, it is not necessary at present to discuss further the questions as to the advantages or disadvantages to result from such change. The important step has been taken, and this, the first number of the new form of publication, is before its readers. It contains the minutes or full record of proceedings of the general sessions of the Association during the recent annual meeting in Cleveland, the annual address of the late President, Dr. John L. Atlee, and a fair variety of other matter of interest to the profession generally. Of course, we have not yet had time to secure the

necessary regular correspondents for manning all departments properly, and with that regularity which is desirable for the highest degree of efficiency. But we shall spare neither time nor labor to complete such arrangements as will make the JOURNAL an efficient representative of the scientific, social, and ethical interests of the whole profession. Thirty-two pages of reading matter each week will make two large-sized volumes for the year. We shall consequently need many original papers and communications beside those coming through the National Association, and we specially invite favors in this direction, from those who read papers before State and local societies in all parts of the country. To our *confreres* of the medical press from whom we have received so many kind and complimentary notices, we return thanks, with a cordial proffer of the right hand of fellowship, and of our best endeavors to promote the common welfare of all.

EXCHANGES—It is understood that nearly all the editors and publishers of medical periodicals in this country have been sending a copy of their respective publications to the Library of the American Medical Association, in the Smithsonian Institute at Washington, in exchange for the annual volume of Transactions. We earnestly desire that they should continue to send an exchange copy directly to the Library, and so many as are willing to furnish a duplicate copy, will bestow a special favor by sending it to the office of the publication of the JOURNAL, 65 Randolph street, Chicago, Illinois. The principal reason for desiring a copy of all exchange journals continued at the Library in Washington, is, that they will there be readily accessible to Dr Wm Lee, of that city, who has charge of the department of this journal relating to medical progress.

MEMBERSHIP DUES AND SUBSCRIPTIONS—All members of the American Medical Association should pay the annual membership fee of five dollars to the Treasurer of the Association, R J Dunghison, M D, P O Box 2386, Philadelphia, Pa, "the same as heretofore, and all who do so will receive the JOURNAL of the Association without further trouble on their part. Those who wish to subscribe for the JOURNAL of the Association, and are *not members*, can send the five dollars, with their post-office address, directly to the "JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 65 Randolph street, Chicago, Ill." These rules apply equally to all those who have heretofore signed pledges of support and returned the same to the president of the Board of Trustees.

A GENERAL INDEX—We are informed, officially, that a general index of the Transactions of the Association from the date of its organization to the present time, embracing the whole series of thirty-three volumes, has been prepared by the Permanent Secretary, and is now in press. It will be ready for distribution at an early day, and all who wish to secure a copy should send *one dollar* to the Treasurer, Dr Richard J Dunghison, P O Box 2386, Philadelphia, without delay. With a full index, the value of the past series of volumes will be increased fourfold.

A FITTING APPOINTMENT—As predicted in the letter of our Philadelphia correspondent, Dr Theophilus Parvin, of Indianapolis, has been appointed to the chair of Obstetrics in the Jefferson Medical College, made vacant by the resignation of Prof Wallace. Probably no more fitting appointment has been made in a medical college for many years, and we congratulate heartily all the parties concerned.

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER

(FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION)

One of the principal topics of conversation in medical circles here is the new JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. Its importance to the profession is appreciated, and the idea that founded it, is considered an advanced one, both as regards medical journalism and scientific medical literature. A medical journal that shall be truly representative is needed. And by representative I mean a journal national in character. Such a journal, if the standard of excellence is maintained, will do much to elevate medical journalism by its competition with the periodical medical literature of the day. Although occupying a province peculiarly its own, the bounds of a journal of this character must, of necessity, overlap somewhat that of medical journalism at large.

Professor Ellersie Wallace, who for so many years has occupied the chair of obstetrics at the Jefferson Medical College, has resigned, and the question who will be appointed to fill the vacancy is exciting no little interest. The chair is an important one, and the college national in character, therefore the trustees are looking for a man with a national reputation to fill it. Naturally they turn to the West which has already furnished a Gross and a Bartholow to the Jefferson, and to her sister college, the University of Pennsylvania, an eminent professor of chemistry, and, probably, before this goes to press, Prof Theophilus Parvin, of Indianapolis, will be selected to take the chair. Professor Wallace was more than usually gifted as a medical teacher, and his forcible lectures have left their impression on a whole race of medical men, and it is a pleasure to know that a man of talent fully equal will succeed him.

A clinical conversational meeting of the Philadelphia County Medical Society was held at the hall, June 20, at 8 o'clock P M.

Dr O H Allis made some remarks on the diagnosis and treatment of fractures of the neck of the femur in elderly persons. He referred specially to the importance of age in making a diagnosis. He said that persons over sixty years of age rarely have dislocation, and if persons of this age fall and cannot rise, the reason most likely will be a fracture of the neck of the femur, probably intercapsular. It is his opinion that persons of seventy years of age, or over, never have a dislocation of the hip, but the

injury will, in every case, be found to be fracture of the neck of the femur. In the diagnosis he makes a point concerning the fascia lata. On the uninjured side it effectually covers the parts, but on the injured side the hand may be passed down and the head of the bone handled. This, with the usual signs, should be sufficient to complete the diagnosis without much manipulation or attempt to get crepitus. All attempts to obtain crepitus he strongly condemns.

The question, what kind of a cure can be expected, he answered by saying that a bony union cannot be hoped for. The first thing that happens in a case of fracture is constitutional disturbance. This may be very severe, and death may result from it. But as soon as this disturbance is over, if the patient survives, he should be got out of bed. These cases occurring in old people cannot stay in bed. They are apt to develop bed-sores, and they will die of the bed-sores. Therefore get them up on the third or fourth day. Never think about the kind of union you are to obtain. Treat the case as if there was no fracture whatever.

Dr J. M. Barton said that he had been in the habit of treating his cases in the manner described, but thinks the present impression of the surgical world is to keep fractures of this kind at rest in bed, and even with splints. The question of treatment has a bearing from a medico-legal standpoint, and, as this is the opinion of so many lights in the profession, it is a question whether we are not legally responsible if we do not follow it. He does not expect to get bony union, but expects ligamentous union as short as possible. His personal belief in the matter is with Dr. Allis.

Dr. Hearn puts on extension in treating this class of fractures, as it gives patients great comfort, but thinks in very old cases Dr. Allis' plan is preferable.

Dr. Addinell Hewson said that he had in his possession a specimen of bony union in intercapsular fracture formerly belonging to his father. His father treated the case by supporting the limb with pillows, bending the knee so as to bring the fragments of the bone in juxtaposition. The use of Smith's splint, Dr. Hewson said, has cured a number of cases in his hands. The treatment should be used early in the case. He has never had as good results from extension and counter-extension as from Smith's splint.

Prof. William H. Pancoast fully agreed with Dr. Allis, about the mistake of too much manipulation for the purpose of exciting crepitus. Owing to the anatomy of the hip joint, the capsular ligament covering the whole of the neck of the femur in front, and only the upper half posteriorly, a fracture may be partly within and partly without the ligament. And as every filament of union is of value to the fracture, too much rough handling to establish crepitus might tear off some ligamentous connection. As one cannot tell exactly the character of the fracture, it is best to treat it as an intercapsular fracture, so as to give the greatest benefit of treatment. It is a good cure if short ligamentous union can be secured.

He can understand how a good result can be produced by Smith's splint. As for himself he has been in the habit for some years of treating this fracture

in a triple inclined plane. It is the Charlestown reclining chair, which can be fixed at any comfortable angle by a ratchet attached to the side.

Dr. Allis asked how soon the patients were put in the chair, to which Prof. Pancoast replied, at once, and they sleep in the chair, which, if it is found necessary, may be extended into a comfortable bed. In some hospital cases, however, from nervousness due to shock, they had to be placed in bed to rest a day or two. He uses, with the triple inclined plane, a splint, or pillow, on the outer aspect of the thigh, and a broad leather strap and pad around the pelvis.

Dr. Allis said that he has had as perfect results without splints as with them. One case, 80 years old, is now walking without difficulty with the aid of a cane. As there is so little chance for motion between the fragments in a fracture of this kind he sees no necessity for splints. One patient was brought to the Jefferson Hospital who had been lying for nearly a week fairly macerating in her own urine which had soaked the bed. She had frightful bed-sores, in the treatment of which she was shifted back and forth from bed to bed. Only the bed-sores were treated. The patient finally left the hospital, and subsequently died of some other affection. Post mortem in this case showed the parts closely dovetailed together in spite of the motion from the shifting which she had undergone.

Dr. Pancoast said further, at the request of the society, and spoke of the fact that fractures of the neck of the femur are more common in aged people, owing to the more rectangular relation of head and neck and shaft, and increased fragility or brittleness of the bones, except the epiphyseal fracture of the very young. He was opposed to the horizontal position in the treatment of this fracture, as anatomically he considered it the most unfavorable. In the horizontal position of the body the external rotators at the hip have the most power, and naturally evert the thigh as is shown by the eversion of the foot, which, at the most distant part of the lower limb, marks like an index the amount of rotation made by the leg.

Dr. Barton then exhibited a patient suffering from phthisis, in whom great improvement followed amputation, on account of necroses of carpal and metacarpal bones. After the amputation the temperature immediately went down, the night sweats disappeared, the appetite returned, and the patient gained ten pounds in flesh. Most of the constitutional disturbance was regarded as from the lung affection, but the result showed the hand to be the cause in great measure. It is a question whether the phthisis was not caused by the diseased bone.

Other things of interest have been said and done in this great medical center during the past month, but space will not permit a further account.

PHILADELPHIA, June 23, 1883

J. V. S.

WASHINGTON, D. C., July 2, 1883

Dear Sir: Allow me to suggest to you that, with the inauguration of the medical journal, which is to be the organ of the American Medical Association,

you open your columns for the discussion of a scheme which shall have for its object the establishment of a Medical Benefit Society. We have plenty of time between now and the next annual meeting of the Association at Washington, in May, 1884, to ascertain how far such a scheme would be supported, and in what shape it would be best to put it, in order to bring it properly before the Association.

That there is a great need for such a society every medical practitioner, of any length of service, will readily acknowledge, and, while we see aid societies and insurance companies working successfully around us for special purposes and for the general public, we cannot but think it more than feasible in its execution, and that the American Medical Association as it stands to-day could best foster and insure a widespread support and sphere of usefulness to such a project.

You have an illustrious precedent in the *British Medical Journal*, which is proposing a similar society, and whose published articles on this subject have suggested this communication. The English society for the relief of widows and orphans of medical men, as reported in that journal for May 26, shows that out of a membership of only 370, nearly \$15,000 had been distributed in grants in one year, and that the expenses for the year had amounted to about \$900.

I have no form of organization to propose, not being sufficiently acquainted with such bodies, and, for that reason, would like to know them better and to hear a proper discussion of the subject.

Yours respectfully, M D

MEDICAL SOCIETY ITEMS

MEDICAL TEACHING AND LICENSING TO PRACTICE

At the meeting of the Chicago Medical Society, held May 7, 1883, Dr Ephraim Ingals offered the following resolution:

Resolved, That the public good would be promoted by the establishment of a State Board of Medical Examiners, such Board to be entirely separate and independent of all medical colleges, to have the exclusive right to grant license to practice medicine in the State of Illinois, leaving to medical colleges their function of teaching and conferring degrees, but obliging all who in future desire to enter upon practice, and who have not already received license to do so, to go before such Board to prove their fitness, and that said Board be required carefully to examine all applicants as to their moral, literary and medical attainments, and only to confer a license on those who are well qualified in all these respects."

It was seconded by Dr R E Starkweather, who endorsed it, and stated further, that he believed a preliminary examination of students should be carried out by a State Board, and that the colleges should graduate a less number than they do. He hoped the colleges in this State would be the pioneers in this preliminary examination.

Dr J H Hollister stated that some phases of this

subject had interested him for years. Improvement, however, is being made gradually in educating students. With reference to elevating the standard of education for students before entering college, he, personally, was disinterested, but thought there should be some common standard by which students in all medical colleges in the State should be measured and examined. An Examining Board might be selected from the Illinois State Medical Society, or be appointed by the Governor. But the appointment should be given to those who are faithful to their profession, and should be regarded as of great value and involving a high degree of responsibility.

Dr J G Kiernan said he had been a medical journalist for some time, and in that capacity was obliged to revise a large number of communications from physicians. Many times the spelling was poor, and he gave an instance in which a New York graduate spelled the word Emulsion, thus "Amulsen." He thought students graduated too hurriedly.

Dr S Strausser thought a higher standard than the present one should be established, and cited instances where diplomas had been easily obtained, and those possessing them were illiterate and unrefined.

Dr C W Purdy spoke of the merits a man must possess before graduating at the Queen's University, Ontario. In Canada there is a medical council that appoints an examining medical board, and a student is obliged to pass this board before entering a medical college, and there required to study four years before graduating. He favored a higher degree of literary attainment here, and also the resolution before the meeting.

Dr R Park said every physician should be required to become a licentiate, and pass an executive or State medical board. The colleges were not thorough enough here, and he would like to see a medical department attached to a State University, but doubted if ever this would be supported by the State.

Dr G C Paoli detailed the methods of medical education in Stockholm, Sweden, which consists of three different degrees, and the applicants for the degree of M D is required to write a thesis in the Latin language, and discuss the points contained therein in the same language in the presence of the faculty. In the degree of Master of Surgery the candidate must be equally as well informed.

Dr J H Etheridge thought the sample letter contained in the written report of the last quarterly meeting of the Illinois State Board of Health (as read) could not emanate from a graduate of any college in this city.

Others participated in the discussion, and upon a vote being taken, the resolution was unanimously adopted.

Dr Ingals then offered the following:

Resolved, That a committee of three be appointed by the chair to represent the Chicago Medical Society, and that they be instructed to confer with the Illinois State Board of Health in all matters contained in the proceedings, and that this society respectfully communicate to our con-

session of the Board that will enable the committee to prepare its report for the society "

Which was also unanimously adopted, and Drs E Ingals, R G Bogue, A H Foster were appointed the committee

THE annual meeting of the Ontario Medical Association was held at Toronto June 6th and 7th The officers for the ensuing year are President, Dr W Clark, Toronto, Vice-presidents, Drs Worthington, of Clinton, Philip, of Brantford, McGill, of Doborne, and Richardson, of Toronto, Recording Secretary, Dr White, of Toronto, Treasurer, Dr Graham, of Toronto, Corresponding Secretaries, Drs Graham, of Brussels, Mackay, of Woodstock, I H Cameron, of Toronto, Aylesworth, of Collingwood

The next meeting will be held at Hamilton, next June

THE eighth annual session of the Medical Society of Arkansas was held at Little Rock May 30 and 31 The officers for the ensuing year are President, J M Keller, of Garland county, Vice-presidents, Geo Hudson, of Onachite county, J M Carrigan, of Hempstead county, J F Blackburn, of Franklin county, D S Mills, of Jefferson county, Secretary, L F Gibson, of Pulaski county, Treasurer, A L Breysacher, of Pulaski county, Librarian, John Waters, of Pulaski county

Little Rock will be the next place of meeting

THE annual meeting of the Medical Society of New Jersey was held June 12th and 13th, at Atlantic City The attendance was unusually large For the ensuing year the following officers were elected President, Stephen Wicks of Orange, Vice-Presidents, P C Barker, of Morristown, Joseph Parrish, of Burlington, and C J Kipp, of Newark, Corresponding Secretary, Wm Elmer, Jr, of Trenton, Recording Secretary, Wm Pierson, of Orange, Treasurer, W W L Phillips, of Trenton

The next place of meeting is to be Cape May

THE ninth annual meeting of the American Neurological Association was held in New York, June 20, 21 and 22 The following new members were elected Dr L Weber, of New York, Dr G S Walton, of Boston, and Dr J T Eskridge, of Philadelphia

The officers elected for the ensuing year are President, Dr Isaac Ott, of Easton, Pennsylvania, Vice-President, Dr W R Birdsall, of New York, Secretary and Treasurer, Dr R W Amidon, of New York

THE Iowa State Medical Society held its thirty-fourth annual meeting at Council Bluffs, May 16th and 17th Fifty new members were admitted The officers for the ensuing year are President, S R Robinson, of West Union, Vice-presidents, H C Huntsman of Oskaloosa and D W Crouse of Waterloo, Secretary, A A Deering, of Boone, Treasurer, G R Skinner, of Cedar Rapids Des Moines is to be the next place of meeting

THE National Society of Microscopists will convene in Chicago in August Committees from the Illinois State Microscopical Society, Academy of Sciences, and Chicago Medical Society have been appointed to co-operate in welcoming the former, and otherwise making this, their first meeting here, pleasant, interesting and instructive

THE officers of the Maine Medical Association for the ensuing year are President, O A How, Lewiston, Vice-presidents, L W Pendleton, Portland, D E Maroton, Monmouth, Corresponding Secretary, J O Webster, Augusta

THE Chicago Medical Society has 220 resident members, twenty delegates from which attended the recent meeting of the American Medical Association in Cleveland, besides some twelve others from Chicago who are permanent members

MISCELLANY

COLLEGE NEWS

At the close of the last academic year of Johns Hopkins University, it was announced that the hospital was nearly ready to open One feature of the building is unique It is so arranged that the graduating class of the medical college may be lodged in the building The last year will be almost wholly devoted to clinical work

Drs Remsen and Martin, who are now Professors of Chemistry and Biology in the University, are made Professors of Chemistry and Physiology, respectively, in the medical faculty Dr Billings, of the army, has been tendered the chair of hygiene It is, however, somewhat doubtful whether he can accept a full professorship and still retain his position in the army

MEDICAL DEPARTMENT UNIVERSITY OF NASHVILLE AND VANDERBILT UNIVERSITY —At the faculty meeting of May 19, the following changes were made Prof Van S Lindsley, to the chair of Diseases of the Eye and Ear, Dr O H Menees, as Professor of Anatomy, Dr C S Briggs, to the chair of Surgical Anatomy and Operative Surgery, Dr C L Ives, as Demonstrator of Anatomy —*Nashville Jour Med and Surg*, June

MCGILL COLLEGE OF CANADA —Dr J F Shepard has been appointed to the chair of Anatomy made vacant by the death of Prof Scott

THE LONG ISLAND COLLEGE HOSPITAL held its annual commencement on June 19, graduating fifty-one students

BOOKS RECEIVED

On the Relation of Micro Organisms to Disease By W T Belfield
Bacteria and the Germ Theory of Disease By H Gradle

THE

Journal of American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

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NO 2

ORIGINAL ARTICLES

ADDRESS ON THE PRESENT STATUS AND FUTURE TENDENCIES OF THE MEDICAL PROFESSION IN THE UNITED STATES, DELIVERED AT THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF MEDICAL EDITORS IN CLEVELAND, JUNE 5, 1883,

BY N S DAVIS, M D , LL D , PRESIDENT OF THE ASSOCIATION

GENTLEMEN—I have promised to occupy your attention on this occasion, in considering the present status, and future tendencies of the medical profession in the United States. There is probably no more difficult problem than that involved in the question, as to the real status and tendencies of the times in which we live, and especially in reference to communities or classes of communities of which we constitute a part. An intelligent mind furnished with all the facts of the past history of a people, or of a profession, does not find it difficult to trace the various influences and measures which have contributed to their development and progress up to a given period in the past. But our minds are so liable to be influenced by such part of the events transpiring in the present as are most nearly related to our own interests, that we find great difficulty in comprehending with equal clearness all the influences at work around us, and consequently cannot judge correctly of their future tendencies. So true is this that if we study the past history of our race, we shall find but few, even of those most eminent as statesmen, clearly comprehending either the full bearing of the measures they advocated or the tendency of the time in which they lived. And a large part of the legislation which is done, through all forms of government, is based upon only a partial comprehension of the existing evils to be remedied, or of the benefits to be obtained, and if carried into effect with still less comprehension of the effects of those laws upon the future interests of society. And what is true in regard to legislative bodies and statesmen, is equally true in regard to any particular profession or subordinate class of people. For instance, at the present time, in relation to our own profession, it is apparent upon almost every page of our medical literature, and from the discussions in every medical society, that many things exist which are far from being satisfactory either as it regards its legal standing and

educational progress, or the results of strictly professional investigation. And yet, in the midst of all the complaints, how few are the instances in which even an attempt is made to point out clearly any remedies for the evils complained of that would not in their practical operation either develop other evils of equal magnitude, or utterly fail to accomplish the purposes for which they were designed. Very much has been said during the last quarter of a century in regard to the imperfections and inadequacy of our system of medical education, and yet how few have even attempted to solve the question as to why the present inadequacy exists, or to point out clearly the way for its improvement. For the purpose of studying the important subject before us I shall on this occasion ask your attention first to the question, what constitutes the status of a profession. The word status is used simply to imply the present state of being, or the present condition as a whole. But, to comprehend the actual conditions and relations of any large class in society as a whole, it is necessary to analyze the interests of that body of men, and look at each factor in its separate relations, and then when they are united we will see more clearly and distinctly the actual conditions and relations of the whole. For our purposes it is sufficient to consider the status of the profession, as comprehending its social relations, its ethical spirit or morale, its co-operative or society organizations, its educational institutions, its legal relations and its scientific activity or spirit of investigation. In regard to the first of these I know of no reasonable ground of complaint. In this country the social standing of the members of our profession is everywhere precisely what the education and qualities of the individual member make them. There are yet no such established ranks, grades, or casts of society in this country as to distinctly assign the members of any profession or calling to a special social standing. And, everywhere, both in the city and country, the enlightened and gentlemanly physician is not only a welcome visitor at the fireside, and around the bed of sickness in all grades of human society from the highest officer of the land to the lowest,—from the most wealthy to the beggar,—but he is also freely received and awarded as high a seat of honor in all social assemblies, whether merely social, literary, scientific or otherwise, as the members of any other class in the community. In the rural districts, outside of large cities, the intelligent, educated practitioner of medicine is in most instances emphatically a leader of society, and is often looked up to, not only as a leader in social affairs, but as an

to all the educational, literary, and hygienic interests of the district in which he lives. The ignorant and the vulgar, however, who may have obtained in some way the title of "doctor," and admission to the ranks of the profession will not find the mere name of doctor to carry him into social life, or to give him a rank beyond that which his education, habits and manners entitle him.

In regard to the ethical spirit and moral tone of the profession in this country, I think it is not only equal to that of the members of the same profession in any of the other civilized countries of the world, but in many respects, it may be regarded as superior. Receiving but little protection or fostering care from legislation, often times, in fact, being obliged to maintain their professional relations, and standing in spite of adverse laws, it is probable that another equally numerous class of men cannot be found, who more rigidly and tenaciously adhere to those rules of an ethical nature, which are calculated to protect and sustain each other on the one hand, and still more effectually to protect the interests and welfare of their patients, upon the other, than is done by the profession in this country. The rule to strictly avoid divulging the secrets derived from confidential intercourse with families and individual patients, the disposition as a general rule, of course, admitting of some exceptions, to foster and protect the interests of each other as members of the same profession, exist in a very marked and gratifying degree, throughout almost our entire country. I will go further than this, in expressing the opinion that throughout the entire ranks of the regular profession of medicine, there is that high moral or ethical tone, which, not only nominally frowns upon and discourages all immoral practices, or the encouragement of those criminal proceedings that grow out of the vicious conduct of members of the general community, but which really exerts a more powerfully restraining influence than any code of penal legislation could effect. In regard to the associate or society interests of the profession, there are a number of questions of great importance to its future welfare. And these questions, like those pertaining to the educational standing, cannot be fully appreciated in their present relations, or in their future tendencies without a retrospective study of the influences and forces which have brought society organizations into existence, and which have given them their present degree of development. It is hardly a century since medical societies, assuming the shape of permanent organizations, first came into existence. In our country it is less than one hundred and fifty years since the first limited and incipient organizations of the kind were brought into existence. The first state medical society organization, of which we have any account, is that of the Medical Society of the State of New Jersey in 1760. Some local organizations in cities had existed, prior to this. A few of these survived, and maintained their organizations through the "War for Independence," and a few were organized anew during the first twenty years after that war. But soon after the commencement of the present century, the work of organizing medical societies on a permanent basis in several of

the original thirteen States of this Union was commenced and carried forward with considerable degree of rapidity. The most complete, perhaps, of these organizations, was that which was effected in New York State, largely under the guidance of Drs. John Stearns, of Saratoga, Alexander Sheldon, of Montgomery, and Asa Fitch, of Washington counties. The two first named were also members of the legislature of the State of New York, and in their work of devising a complete system of medical organization for that State, and procuring its adoption by the legislature, they were greatly aided by the Hon. Samuel W. Van Ess. The act of incorporation which embraced the organization of a State Medical Society, with auxiliary county societies in every county in the state, conferring both upon the state and county societies the duty of appointing boards of censors for the examination of candidates for admission into the profession, was passed by the Legislature of that state in April, 1806. Legally organized medical societies were formed in other states with such a degree of rapidity, that all the original thirteen states, except Pennsylvania, Virginia, and North Carolina, had more or less complete state and county organizations before the end of the next twenty-five years. And as new states were added from time to time, state and local medical societies were organized in them, accompanied usually by legislation, intended not to protect the profession, but to prevent the imposition upon the community practiced by ignorant and unskillful pretenders, in nearly all of the then existing States of the Union. A careful study of the laws which were enacted during all that period, embracing the first thirty years of the present century will show that while the legislative bodies were influenced almost solely by two leading motives, one to protect the people from the effects of ignorance and imposition, and the other to encourage genuine medical education as a means of benefitting the people at large, the physicians themselves were animated by an earnest desire to carry into effect the laws enacted for those purposes, and by two other leading motives. The first, and perhaps most powerful was the desire for mutual improvement in professional knowledge and practical skill. The second, a desire for more extended mutual acquaintance and personal intercourse.

These organizations produced all the beneficial effects that had been expected from them, and perhaps in no country at any period of time, has a more rapid degree of progress been made in the educational, social, and practical interests of a profession than took place during the first quarter of the present century in our own country. And nearly, or quite all the laws that had been enacted, either for incorporating medical societies, or defining what should constitute a proper education, also included provisions against irregular practice. As might have been anticipated in a free country where the utmost liberty is enjoyed for the pursuits of man, and for exercising choice individually in every relation and aspect of society, and where all legislative bodies are made elective by direct votes of the people, it did not require more than one or two decades of the existence

of the restraints that had been thrown upon the practice of imposition and every variety of ignorance, to develop combinations of those who were thus placed under disabilities, for the purpose of aiding each other in influencing the legislatures, or rather in influencing the voters, who were required to elect annually, members of the various legislative bodies. And, as in almost every age of the world, the cry of liberty, of individual freedom, of the right of every man to judge and act for himself, has exercised a charming influence over the masses of mankind, so, in the brief period intervening between 1820 and 1840, the rise and spread of what was known at that period of time as "Thompsonianism," (now Eclecticism,) in medicine, the advocates of which were soon recruited by the followers of Hahnemann, and all the various forms of imposition, by diligently urging upon the various legislative bodies and upon the people the idea that all the legal restraints which had been enacted solely for the protection of the people were only calculated to interfere with individual freedom of opinion and choice and to make the practice of legitimate medicine, a monopoly found little difficulty in securing the election of legislators, who succeeded in repealing almost all the clauses in the various laws and charters, that had exercised any restraint upon unlicensed practice. And, in proportion as this was done, more or less discouragement appears to have been felt by the supporters of medical organizations. The societies were less actively supported, and in many instances during the succeeding ten or fifteen years became practically obsolete. So marked was this decline that from 1845 to 1850, instead of there being active working society organizations in nearly all of the states then existing in the union, sustained by large numbers of county and city medical societies, two-thirds of those previously organized had either discontinued stated meetings or held them with so small an attendance as to give them but little influence upon the profession at large. Should I stop here the impression would be made that the profession lost interest in the medical organizations simply because the laws had been so altered as to leave them without any exclusive privileges in regard to practice. This, however, while it had its influence was by no means the chief reason for this decline in the spirit of medical organization. As I have already remarked, in the granting of charters and enactment of laws, in almost every instance the legislative bodies had conferred upon the medical societies the power and enjoined the duty of their appointing and maintaining "Boards of Censors" for the special work of examining and determining the qualifications of applicants for admission into the profession. In all these instances a fee was charged for the examination and license. And, at the commencement of these organizations, during the first decade of the present century, almost the entire body of men who entered the profession annually entered through examination by some one of these "Boards of Censors." Consequently the fees derived from these examinations constituted to a very large degree the fund relied upon for defraying the expenses of the organizations, and the publication of their transactions. And,

with few exceptions, in granting charters for medical schools in the different states, these schools were also endowed with the privilege of examining and granting diplomas to such of their students as complied with certain regulations, and these diplomas became equally a license to practice. While from 1800 to 1806 there were only three medical schools in active operation in the then existing states, namely one in Philadelphia, one in New York, and one in Boston, the entire number of students in these schools did not exceed, annually, three hundred, and of these not more than fifteen annually received diplomas as college graduates. But so rapid was the multiplication of colleges, and so much was the student drawn from the office of the private preceptor to the college halls that before the middle of the century (1850), more than forty medical schools had been established, and the number of students annually attending was over 4,500, and the number of graduates thirteen hundred. This rapid transference of the application for legal admission into the profession from the censors of the several societies, State and local, to the medical schools exerted a powerful influence, coincidently, with the other influences that I have already indicated in causing such societies to decline in their efficiency and activity throughout nearly the entire country. Where they maintained an existence the members attending were comparatively few. In the great State of New York, for instance, it was rare that more than from forty to fifty members gathered at the regular annual meetings of the State society.

The rapid multiplication of medical schools during the period to which I have alluded, and the transference of applications, for admission to the profession, from the medical organizations to the colleges, thus practically making the college diploma the chief and popular evidence of education and admission to the profession, had not only caused a decline of the interest manifested in the medical societies but it had also exerted a very material bearing upon the organization of the colleges themselves, by placing a direct barrier in the way of allowing their competition and rivalry to be based entirely upon the question of which should present the most perfect and extended facilities for acquiring an education, in the form of another question, which experience has shown to be far more powerful in its influence, both upon the students and the colleges, namely, at which college can the student obtain his diploma that is to be his license to enter the profession, with the least expenditure of time and money? The influence that this question had upon the schools, as they multiplied, is seen by a glance at the organization and requirements of the first colleges established in the country, and comparing them with the organization and requirements for a diploma fifty years subsequently, when the numbers had increased from two to between forty and fifty. The first college organization in the colonies of which the Pennsylvania University is still the representative, required for admission a full and fair standard of general education, including knowledge of the classics, Greek and Latin, the natural history, and although the field of mat-

time was hardly more than one-third of what it is at present, the college term was made full six months of the year, and the student was required to attend faithfully from two to three full years to obtain the primary or bachelor's degree, and could not obtain the title of "Doctor of Medicine" until he added from one to two years more—making a curriculum of study, period of time to carry it out, and period of active teaching in the college, hardly inferior to that which is demanded at the present time by, perhaps, half a dozen of the most advanced colleges in the country. But just so fast as colleges were multiplied, either in the same city or in neighboring cities, and the advantages of college instruction became more and more apparent, and the influence of medical society organizations, and the demand for higher education, just in the same proportion, was there a steady contraction of the annual college term, a diminution of preliminary requirements needed to enter college until at the end of the period we have under consideration, between 1840 and 1850, among all the forty or more colleges then existing, not one of them required of the student any standard of preliminary education, and the longest lecture terms were embraced in sixteen weeks of the year, while in several of them it was reduced to thirteen weeks, in which the student was to go over the whole field of medical science. The influence of this question as to where the student could get his diploma with the least expenditure of time and money, instead of where he could obtain the highest degree of medical education within a limited time, in deteriorating the educational standard of the profession, was so prominent as to attract the attention of many of the most eminent men in the profession at that period of time. Consequently it became a subject of active discussion in the medical society of South Carolina in 1835, and only a little later in the medical society of Ohio, and frequently in the medical journals of that period. Some of the most vivid pictures of the evil effects that had been produced, are to be found in the writings of that eminent man of the Mississippi Valley, Dr Daniel Drake. About the same time the subject engaged the active attention of the medical society of New York, in which it received the full consideration of a special committee consisting of Drs J R Manly, J B Beck, and John McCall, a trio of noble men, whose report in the transactions of that society may still be referred to with profit.

It was the renewal of the discussion of this subject in the meetings of the "New York State Medical Society" in 1844-5, that led to the assembling of a convention with which you are all familiar, in the city of New York, in May, 1846, which convention, though composed of only a little more than seventy delegates, nevertheless represented a majority of the States in the Union, and took all the necessary preliminary measures such as the appointment of committees, and the laying out of a full scheme for a permanent national organization, which had its completion in the establishment of the American Medical Association at an adjourned meeting in Philadelphia the following year.

The completion of the organization of the American Medical Association in 1847 on a representative basis, with the permanently organized State and local medical societies for its chief constituency, thereby inviting delegates from the various medical societies and organized institutions in medicine throughout the whole United States, very speedily developed so active a spirit for reviving old State and local societies, and the organization of new ones where none had before existed, that in less than twenty years there was hardly a State or Territory in our widely extended country that had not its medical societies again in more or less active operation.

The active interest in medical organizations thus rekindled has been maintained to the present time, and by holding the meetings of the national organization in various parts of the country from under the shade of the monument on Bunker Hill at the east, to the borders of the "Golden Gate" upon the Pacific, from the beautiful city upon the upper Mississippi almost upon the hydrographical axis of this great continent, to the Crescent City resting upon the Gulf, the members of the profession have been made socially acquainted with each other, geographically acquainted with every part of our country, until a spirit of just emulation professional pride, and what is still more valuable, a spirit of investigation and zeal for the advancement of medical science throughout all ranks of the profession has reached a point higher than it has before attained at any period of time, and perhaps higher than it has attained in any country by means of purely voluntary organizations without the support of law. If I were to stop at this point the impression would be left that the present status of our professional organizations is, in a high degree, satisfactory. And so far as regards their social influence upon the profession, and the promotion of intercourse and acquaintance of the members in one section of the country with those of another, they are fulfilling their purpose as well as could be desired. But they are nevertheless defective, both in regard to the completeness and extent of the organizations, and in their practical working as professional and scientific bodies. For, while it is true, as I have before stated, that almost every State and Territory, and a large proportion of the counties and districts have organized medical societies more or less active in their work, yet these organizations embrace only a part, and in some instances only a minor part of those recognized as educated practitioners in their various States and localities. It would be productive of great good if methods could be devised by which these organizations would be made to embrace more nearly the entire body of practitioners in every locality where they exist. It would not only enhance their value by the acquaintance of their members, but it would bring about a more united and harmonious condition of the profession in every State, so that the voice of the profession, as indicated by the action of these organizations, would have greatly increased force, both upon the profession itself, upon the community in general, and especially upon the legislative bodies, in any direction in which laws were desirable for the protection of the public.

health, or for the promotion of scientific investigations. Another defect is the want of sufficient method in the mode of cultivating the scientific interests of these associations.

Almost universally, up to within the last four or five years, reliance has been placed upon the reception at the various meetings of reports from committees generally appointed to report upon particular topics, or particular branches of medicine, and upon volunteer communications. Very little attention has been given to the planning of definite lines of inquiry, either by individuals, to be carried on in original investigations, or by the cooperation of many members of the society in different places keeping records of facts arising under their observation coincidentally with records derived from other scientific sources, and the report of these facts annually to such committees would give them the necessary analysis, comparison, and deduction. And, yet, this is the only way by which the data can be obtained for real advancement in several of the most important departments of medical science. Papers that are presented by individuals, embodying cases coming under personal observation, and the results of personal experience are valuable. The reports of committees appointed to report, for instance, upon a department of medical science, whether it be in surgery, practical medicine, or *materia-medica*, are also of more or less value. But, as experience has shown, they are necessarily made up largely, by compilations of facts already in the medical periodicals, or if derived directly from correspondence with practitioners, they are given without the coincident knowledge of the topography and meteorological conditions, or of those circumstances which must necessarily go with the facts in relation to the prevalence of disease, to enable us to compare results in one locality with those in another.

It is this want of definite, well devised plans of original investigation and inquiry on the one hand, and of well planned cooperative observations on the other, that has led many of the wisest and most learned among us, to think that all our medical organizations, whether State or national, amount to little more than a means of making professional acquaintance, enjoying annual seasons of social intercourse with each other, highly gratifying in their nature, but accomplishing little in the advancement of medical science. There is another element, also, which has been developed during the rapid revival of medical organizations throughout the country, which begins to develop effects clearly to be distinguished. I allude to the rapid increase of specialties in medicine. At the time of the organization of the American Medical Association in 1846-7, the number of specialties in the profession was very limited. They have always existed in some degree, but they existed up to that time almost entirely as a natural outgrowth in particular individuals from the circumstances that surrounded them, and, it was exceedingly rare in this country, and comparatively so in Europe, that individuals, at the commencement of their professional career, entered at once upon a special field of practice. Much less was it at all common for those com-

mencing the study of medicine to carry on their studies with the idea of simply qualifying themselves for the practice of such particular branch of it as might be thought most available.

But, with the rapid multiplication of medical schools, to which I have already alluded, with the equally rapid transference of the functions that had hitherto been performed by independent boards of examiners to the medical colleges, by making the college diploma the license to practice, there came rapidly into existence the idea of pursuing limited fields of study, and still more limited fields of practice. And from the general division that had long existed, and necessarily must exist, of general practitioners, surgeons and obstetricians, we began to have those who limited themselves to the study and the practice of special departments, until in the brief period of less than fifty years we have specialties for almost every part or region of the human body. Just in proportion as these special interests were developed, there became manifest a restless desire for privileges to advertise these specialties more liberally than the general "code of ethics" which had been adopted by the American Medical Association would permit. And it was in reference to this subject that our national medical organization developed its first controversies in regard to the provisions of that code. And all who can recall the earlier years of the Association, will remember the warm and sometimes exciting debates that sprang up at different meetings, and the persistent efforts of those who had taken up special lines of practice, to make such alterations in the code as would give them greater privilege of advertising. It was not until at the meeting of 1869, after the subject, which had been referred to a well selected committee, had been considered during a whole year and reported upon—the report ending in a definite series of resolutions defining the relations of specialties in this particular, and also the relations to general practice, which was adopted by so unanimous a vote of the Association that the efforts in that direction were set at rest. And although all effort in that direction ceased to be manifested in the meetings of the Association, there was still a manifest disposition growing out of similar influences to bring about, under other names, some alterations in the code, and which resulted a few years later in its being referred to the judicial council with instructions to give it a careful revision. This was done and the report from that council, after consulting with large numbers of leading members of the profession as to any alterations that could be suggested, distinctly recommended that the code be allowed to remain unchanged, which report of the council was sustained by a unanimous vote of the Association.

In proportion as it became evident that no concessions in this direction could be obtained through the national organization it also became apparent that these restless classes were taking less interest in the general organization, and inclining to the formation of societies of their own. This disintegrating influence has continued to increase until we have general and local organizations, distinct from either the State or national societies, representing not only ex-

ery specialty worthy of mention, but also some having no well defined purpose. And instead of those who are engaged in the various special departments coming up annually to the one great national body and thereby maintaining their intercourse, identifying their interests with the interests of the whole profession, and carrying on their special work as *sections* of the general organization, they have become, in a great degree, separated into distinct and independent organizations. And their publications instead of constituting a part of the transactions of the national association and of the State societies, have come to constitute volumes by themselves. We have thus lost in some measure the unity of our professional organization, and in the same proportion we have come to perceive clearly the existence of diverse, if not directly antagonistic interests. So much so, indeed, that it has become quite common to hear the interests of the general practitioner and the wants of the specialist spoken of as essentially distinct. And a large proportion of the people have come to regard in nearly the same light, the different special forms of practice and the different systems or sects in medicine, thereby directly helping to obscure in the public mind the line of distinction between the great body of supporters of scientific medicine and the various factions, isms, and excrescences that hang upon its skirts. I must not be understood as being opposed to the practice of special departments in our profession. On the contrary they grow naturally out of the extent of the field of medicine, the wants of society, the limited duration of human life, and the limited extent to which human acquirements can be attained. But while this is all true, there is still plainly visible a tendency to excess in the development of special departments entirely beyond any wants of society, or any necessities in the field of medical inquiry, and it is the excess to which I call attention. It is perfectly compatible with the highest development of specialties that they be founded upon a full general field of education, and be allowed to develop in the individual after he enters upon his field of practice in accordance with his own special tastes and of the circumstances that surround him in that field. This is equally compatible with the maintenance of the general integrity and unity of the profession, not only in its feelings of interest, but in all its organization. And the subject is worthy of the most careful consideration, especially of those who are connected more or less with the medical press of the country, who by controlling the reading matter will thereby influence very much the opinions, and consequently the progress of the further organizations of the profession. All who are thus engaged should study carefully the past progress and the present influences which are at work, and while encouraging all legitimate branches of inquiry and of practice, they should repress with equal care the excesses, and the tendency to make these excesses disintegrative influences instead of elements co-operating with that harmonious unity which constitutes strength.

These defects in our organizations, namely the tendency to disintegrate through special interests and in-

fluences on the one hand, the absence of clear, definite, well-considered plans or lines of inquiry and schemes of original investigation on the other, can all be remedied if their extent is fully appreciated and the medical press will exert its legitimate influence in keeping both the extent of the defects and a temperate consideration of the best means for remedying them, steadily before the minds of their readers. So far as regards advancement in the line of co-operative observations and carefully planned lines of investigation, the American Medical Association has already made a beginning. During the last four years there has been steadily developing under the guidance of a standing committee, furnished with a small appropriation of funds, coincident observations and records in regard to appreciable meteorological conditions, including the ozonic and oxidizing agents of the atmosphere, and during the last year, including also the organic constituents, in direct connection with coincident observations and records in regard to attacks of acute diseases. And the progress made thus far, as will appear from the report of that committee during the present session of the Association, will give full promise of most valuable results. But such inquiries should be greatly extended and in some instances, should bring into co-operative action both national and State organizations.

But I must hasten from the consideration of this subject to a few further thoughts in regard to the educational status of the profession. From what I have already said in regard to the organization of schools, it will be seen that we have undergone in this country a complete revolution, in the mode of educating members of the profession during the last one hundred years. Prior to and extending into the first quarter of the present century, the young man intending to become a member of the profession, sought the office of some practitioner generally above mediocrity in his attainments and reputation, and became indentured for a term of years as a regular apprenticed student of medicine. And as a general rule, the student thus indentured was expected to continue in the employ of his preceptor, a period of from four to seven years, during which he gained his medical knowledge by the study of the preceptor's library, aided by the direct personal instruction of the preceptor himself, with such other limited means of illustration as could be commanded in the office of the ordinary practitioner. When he had passed to the last one or two years of his indenture period of study, and had mastered so far as he was capable, from his own efforts, and from the personal teaching of his preceptor, the more elementary branches of medicine, he was allowed to do minor work in surgery, prescribing for and dressing office patients, occasionally to visit the sick, frequently with his preceptor, and thus became familiar with disease clinically. The student thus served a direct apprenticeship in study and to some extent in practice, usually entering upon his field by himself, simply on the authority of a letter of recommendation and certificate of acquirements given him by his preceptor. It is in this way, that some of the most renowned men whose names appear upon the pages of medical literature gained

their education. It is true, at that period of time, it was generally thought necessary that a young man applying for admission to a preceptor's office should have a fair general education. Many of the best teachers would not take students until they had more or less of a classical education. Some were taken for long periods, seven years for example, and were required to devote the first two years of the seven to the study of the general branches of science as a preparation for taking up those of medicine proper. But as the field of medical knowledge was rapidly extending at that period of time, especially in the department of anatomy, physiology, organic chemistry, etc., the means for their successful study and illustration, could not be well provided in the office of a private preceptor. It was this that first suggested the idea of establishing separate rooms, and gathering means for illustrating those departments needing further illustration, in classes. And in the cities and large towns there came thus to be special classes of students, and special rooms in which to receive such parts of their instruction as needed illustration. And from this it was an easy step to the organization of a medical school by the union of several preceptors in the same enterprise. The medical schools coming into existence through such influences, as was the case both in Europe and in this country, their purpose was not to give a complete education, but to review the different fields of study, more especially for the purpose of teaching that department in each field, requiring special illustration. Hence the first idea of a medical college was not an institution for giving a student his full education, but simply to supplement the knowledge and education that he was still supposed to get in the office of his preceptor. And it only requires a glance at the history and progress of the first schools in America, which were organized in Philadelphia, New York and Boston, to see this relation fully presented, both, in the organization of the schools, and in the arguments and circulars that were

shown while speaking of the early progress of medical organizations. In the same connection I also pointed out clearly *how* it came that while the colleges were rapidly absorbing the whole work of professionally educating the student, their annual college terms were steadily shortening and their standards of requirement lowering instead of increasing both, *pari passu*, with the increase in the extent of their work, and the rapidly extending boundaries of medical science. I have shown that this anomaly in educational progress was so plainly the result of investing the college diploma with the attributes of a license to practice, while the colleges were at the same time dependent entirely upon the income from students for their support, that the agitation for a remedy led directly to the establishment of the American Medical Association, and through it, to the general revival of medical society organizations throughout the whole country, most of which are purely voluntary organizations having no legal status. It has appeared from the same review of the past, that during the first twenty-five years of our national existence, laws were enacted in nearly all the then existing States designed to protect the people from the impositions of ignorant and designing men claiming power to heal the sick, by prohibiting unlicensed practice, etc., but which were nearly all repealed or so amended as to render them inoperative during the next thirty years by means of the popular prejudices and false representations attendant upon the rise and spread of Thompsonianism and homœopathy, the one playing upon the mind of the masses with all the power of bold and ignorant empiricism, and the other captivating the credulous tendencies of the more fashionable circles by a mystic transcendentalism inclosed in sugar pellets. The first has died a natural death, leaving a void, the second, like some medicines, retains its name as a "trade mark" and its organization for its influence, while the once transcendental

in which the profession finding its educational interests practically transferred to forty or fifty colleges acting under charters obtained from separate legislative bodies, each dependent for support on the *number* of students it could attract, its legally organized societies deprived of nearly all that was valuable in the previously existing laws, sought protection for itself by a more extended combination of interests, and a more general union and harmony of action in the foundation and development of a national organization which, by its representative character, should give emphasis and force to its recommendations, and by equally fostering a more complete voluntary organization of the profession in every State, county and city in the whole country.

During all these periods the different departments of medical science had been rapidly advancing, and entirely new departments were being added, and during the latter, especially, the division of the general practical departments into limited fields of practice called specialties, took place almost as rapidly as the increase in the number of medical schools. The great defect in the practical working of this third epoch of our history, which may be properly called the period of voluntary organization and national union without the support of legal forms or legislative enactments, was the absence of any adequate medium through which the voice of the great central and representative body could be readily and reliably transmitted, either to the profession at large, to its organized constituents in the several State and local societies, or even to its own members. Meeting once a year, and depending mainly on general reports and volunteer papers for its scientific interest, and on the voluntary publication of abstracts of its proceedings once in the general medical press and the scanty distribution of its annual volume of transactions, for its moral or ethical and educational influences, it is not surprising that it should have failed to accomplish all that its more earnest supporters had hoped. And yet the careful student of history will be surprised to find that, with all these defects, the united organizations, State and national, have still exerted a great influence in devising and enforcing a uniform and high standard of ethics, in greatly increasing the general spirit of investigation, in pushing the demand for a higher standard of education so far as to induce a considerable number of the best class of medical colleges, especially those constituting departments of well established universities, to actually adopt a more systematic and comprehensive system of instruction, in spite of the strong opposing forces of a pecuniary nature, and the length of time they have not only maintained, but steadily increased their number and influence.

Having fairly entered upon the fourth era of our professional history our present status may be briefly expressed in the following propositions or general statements. First, the profession consists of an important, I may say essential, class of human society, numbering 60,000 or 70,000 persons, more or less educated, and engaged in the noble work of alleviating human suffering, by fostering every sanitary measure calculated to prevent disease, and culling

from every field of nature the means for combatting disease when not prevented, and as a whole animated by a high moral tone, and an active spirit of social and scientific progress. Second, this great class of society is pervaded and unified by voluntary society organizations for the mutual improvement of its members and the advancement of all its important interests, in a very large proportion of the cities, counties, and States, all centering in one representative national organization—the American Medical Association—constituting the frame-work of an organization, which, if completed by the filling of its gaps and the extension of its membership, and voiced by an efficient and frequent medium of communication, both with its own membership and with the profession at home and abroad, would in its influence be well-nigh irresistible. And yet for the want of this filling up of the ranks and the absence of the medium for efficiently voicing its doings and utterances its influence is not only limited, but the disintegrating forces I have already pointed out, are making visible progress. Third, not only is the education of the profession in the hands of 60 or 70 independent medical schools, but the influence of their rivalry is still perverted by the recognition of their diplomas as equivalent to a license to practice. And while a few have yielded to the demand for more extended college courses, graded curriculums with annual examination in progress, far the larger number still adhere to four and five months repetitional courses of instruction annually, with only the one examination at the close, and while making a show of enlargement by preliminary lectures and short spring courses which the students may attend or not as they please, each carefully avoids any positive increase in the actual requirements for graduation through fear that its rivals will not do the same. Fourth, the long absence of any adequate laws for protecting the people from the impositions of ignorant and unprincipled medical pretenders, and the increased attention given to the sanitary interests of communities, have again awakened the attention of legislative bodies and are developing a strong tendency to once more enter upon the enactment of laws for enforcing sanitary improvements on the one hand, and the ensuring of a higher standard of attainments on the part of those who shall be permitted to enter upon the practice of medicine, on the other. This tendency is manifested in the establishment of national and State boards of health, and in legislative acts for regulating the practice of medicine in several of the States. It is this revival of legislative tendencies which constitutes one of the most interesting features in the present status of our profession, and is rapidly developing changes of the highest importance both to the profession and to the people. And on the final outcome of these changes will depend the status of the profession for the next fifty years. The fact that the great advancement in all departments of medical science and practice, and the complete transference of the work of education from the preceptor's office to the schools, is imperiously demanding a corresponding advance in grading and extending the curriculums, and adding to the actual requirements of those institutions, is

clearly perceived both by the profession and the people. That the highest interests of human society require the adoption and enforcement of such regulations as will ultimately insure a fair standard of education and mental discipline before entering upon the study of medicine, and more efficient methods of enforcing a fair standard of professional attainment before receiving a license to practice, is equally apparent to all.

To attain these important ends is pre-eminently the work of the present epoch of our history. To accomplish this work in its fullness four things are necessary. First, a legal and reasonably uniform definition of what shall constitute the minimum amount of general education that shall be required to fit the student to enter upon the broad and intricate field of medical studies. Second, a similar legal definition of what shall constitute the minimum amount of time required for strictly professional studies, how much of it must be spent in medical colleges and hospitals, and the minimum standard of professional attainment to be required as a condition for receiving a license to practice. Third, the establishment in each State of a competent, reasonably stable, and impartial tribunal which shall determine by actual examinations and other proper tests, when these standards, both of preliminary and professional attainments have been complied with, and a certificate from which, shall be necessary before commencing medical study, and license before admission to practice any department of medicine. Fourth, the steady increase, both in filling up, extending, harmonizing the society organizations of the whole country by which they shall more fully bind all together in one representative national organization, thereby preserving the high moral tone so long embodied in our national code of ethics, facilitating co-operative investigations in the advancement of scientific knowledge and that frequent intercourse which breaks our local prejudices, broadens our patriotism, enlarges the field of our mental vision and makes us happier individuals and more skillful physicians. To accomplish the first three of these objects requires the most considerate and wisely planned legislation in each of the States in this great Union. And the time has fully come when those I more especially address on this occasion connected with the medical press should enter carefully upon a temperate, candid, and liberal discussion of these important topics. Let us avoid all personalities and local prejudices, by so studying the history of the past that we realize the important historic truth, that all great changes in human progress, whether forward or backward, are the result of laws and forces that govern alike the workings of the human mind and the evolutions of human society. Then we shall more readily look beyond the motives of individuals to the social factors which may have occasioned the motives to exist. I am not sure but the time is already at hand when the American Medical Association should appoint a well-chosen committee, charged with the duty of devising some uniform scheme or plan of legal methods for making the definitions and establishing the examining tribunals to which I have just alluded, that they might be submitted to the several State societies, and

when well matured, by them submitted to the several State legislatures. Such a course started now coincident with the revival of the disposition to legislate on medical matters, and pursued with both wisdom and patience, might result in the more speedy adoption of judicious and reasonably uniform laws in relation to the important subjects of medical education and practice throughout the whole country, than many of us would expect. But whether speedy or slow, it would be doing our legitimate part of a work demanded by the highest interests of human society. For want of such timely action and discussion, already we see several imperfect and incongruous enactments, establishing State boards to grant licenses to practice, not founded on any defined standard of attainments, either literary or medical, but on the presentation of a diploma granted by some incorporated medical school or college, whether labeled with some special trade-mark or not, and without any adequate means of determining whether the diploma was granted simply on the reception of a specified sum of money without the recipient ever having seen the inside of the college granting it, or after an attendance during the ordinary term of a nine months' gestation and the form of an examination. Consequently we see all sorts of medical pretenders, and young men and women in all stages of education, equally clothed with a *legal* license to practice by the very board which had been created for the purpose of elevating the standard of medical attainments for the benefit of the country at large. But the absurdities of this well intended, though unwisely devised legislation do not stop here. No sooner does the State Board fairly begin to clothe the offshoots of every *pathy* and *ism*—that hang as excrescences upon the skirts of true medical science, with formal legal license to practice medicine, than certain other restless disintegrating elements inside of the profession, begin to put in the plausible plea that whatever the law *licenses* the profession should recognize, by changing some of its most sacred ethical rules, and open the way for the educated physician to meet on a common platform, the mountebank clothed in Indian costume and blowing the fame of his herbs on a tin horn through the streets, or the scion of transcendentalism labeled with a trade-mark indicating the universality of the law of *similars*, thereby speedily making the sickroom again the scene of collisions and quarrels, as disgraceful as any described by a Sterns or a Drake half a century since. It may be necessary, however, that some of these glaringly absurd results of incongruous acts of legislation should be experienced as stepping-stones to something better. For there are many restless, disturbing elements in all classes of society which can only be controlled by allowing them to practically *feel* the evils of their schemes. But the accomplishment of the fourth object I have named rests not on legislative enactments, but upon the action of the profession alone. I allude to the maintenance, extension, and ultimate completion of our local, state and national organizations, under one harmonious and co-operative system which shall continue to unify, elevate and advance all the social, ethical and scientific interests of the pro-

fession, and consequently promote in the highest degree the welfare of all classes in the community. Does the profession at this time contain those elements of wisdom, moderation and perseverance, necessary for effectually opposing all the disintegrating and iconoclastic elements that I have pointed out in the earlier part of this address, and steadily advancing on every line, State and national, until the victory is sure? Or shall the work of disintegration, so boldly begun in New York, extend its baneful influence until social anarchy again holds sway over the whole profession? These questions are worthy of the most careful consideration of every friend of medical science and progress. After almost half a century of active mingling with my professional brethren in every part of our great country, and a careful study of its history, with all the elements and forces calculated to influence its progress in the midst of our free political forms of government, I am satisfied that the first of these questions can be answered in the affirmative and the second in the negative. Measures are already rapidly maturing which will render the present social upheavals and imperfect attempts at legislation only the precursors of an awakening to wiser and more active work in the right direction, and consequently of hastening results of the most beneficial character. With a platform which requires us to study man in all his aspects of health and disease, and to seek remedies for his relief in every field of nature aided by every human science, to apply them on any principle and in any quantity that an enlightened judgment may dictate as most beneficial to our patients, and to cordially extend the right hand of fellowship to all who rally upon it under the banner with the single inscription "Doctor of Medicine"—but to sternly discard all who would mar the significance and beauty of that inscription by qualifying it with the addition of an *ic*, or *ism*, or *pathy*—our noble profession will continue to uphold its own dignity and honor, and to extend more and yet more its blessings alike to the rich and the poor, the learned and unlearned, as long as disease and death continue to afflict the great family of man.

JOURNALISM DEVOTED TO THE PROMOTION AND CONCENTRATION OF MEDICAL AND SURGICAL SCIENCE

BY HENRY O. MARCY, A. M., M. D.

Read to the American Association of Medical Editors June 5th 1883

It is scarcely more than two decades since the late surgeon George A. Otis, whose great work, "The Surgical History of the War of the Rebellion," has won for its author imperishable honor, advised us as his pupil even at the beginning of medical study, to devote a certain portion of each day in the discharge of the duties of curator of a natural history collection.

This he did with the statement that the medical man needed a side issue for his superfluous energies.

The late Dr. A. A. Gould, of Boston, who was one of the wisest clinical instructors, it has been our fortune to meet and ever in demand at the bed-side of the rich and the poor alike, found time in the midst of his busy career to give attention to natural science, with certain branches of which his name will ever be connected as one of the brightest stars in the galaxy of American scientists. Our venerable friend Dr. D. H. Storer, of Boston, now in his eightieth year and still mentally the peer of the best, has had a clinical career of over half a century, which challenges comparison with any of this generation, and yet, he has written four large volumes upon the fishes of Massachusetts, a standard work, and of a classical value second only to that of the great Agassiz himself.

Little more than a century ago the illustrious Haller was professor of botany, physiology, anatomy, obstetrics and surgery, a whole medical faculty himself, and yet devoted some hours daily to the writing of his *Bibliothèque de Médecine*. What does the lesson of these periods and lines teach? Not only a superior ability, wisdom, knowledge and judgment, but as we all know as compared with the requirements of to-day, that the rapid advances of the cycling years have brought with them new demands, new fields of investigation and an unexampled progress.

The border lines of our knowledge have steadily and rapidly widened, until the devotee of the science of medicine, no matter how diligent and learned, ceases to hope for more than a general knowledge of its diversified factors and confines himself with ambitious purpose to some one or more of its subdivisions.

The Darwinian doctrine of development holds good in the evolution of all the sciences, to which medicine is no exception, and the specialist of to-day in law, in theology, in natural sciences in their manifold application to the arts, as well as in medicine, is the legitimate fruitage of the age in which we live. From this standpoint it is well briefly to review the literature of medicine. Thanks to the one man of America, the par-excellence specialist above all others in this bibliothecal field of labor in his generation, Dr. Billings, of Washington, this is comparatively an easy task. We turn with ever increasing admiration to the ponderous folios of Haller, of Margagni, of Sydenham, of Harvey, of Hunter and others of the old masters, men who laid deep the foundations of medical lore, whose observations have long ago been appropriated to the current stock which finds place in every text book of to-day.

Individuality is thus early lost for the most part in the ever-turning Kaleidoscopic pattern, the old facts are re-arranged, old grists re-ground in new mills and the product stamped "patent" until it is a wise father who knoweth his own mental progeny. From Dr. Billings' most interesting and instructive address delivered before the International Medical Congress in London, 1881, we learn that it is usually estimated that about one-thirtieth part of the whole mass of the world's literature belongs to medicine and its allied sciences. Thus it appears that our medical literature now forms a little over one hundred and twenty

thousand volumes, properly so called, and about twice that number of pamphlets, and that this accumulation is still increasing at the rate of about fifteen hundred volumes and twenty-five hundred pamphlets yearly. There are, by estimate, about two hundred thousand trained medical practitioners scattered over the earth, and one-half of the number belong to America and Great Britain and her colonies, of these about one in twenty are producers or contributors to medical literature.

The special characteristics of the literature of the present day are largely due to journals and transactions, and this is particularly true in medicine. Our periodicals contain the most recent observations, the most original matter, and are the truest representations of the living thought of the day, and of the tasks and wants of the great mass of the medical profession, a large part of whom, in fact, read very little else. They form about one-half of the current medical literature, and in the year 1879 amounted to 655 volumes, of which the United States produced 156, Germany, 129, France, 122, Great Britain, 54, Italy, 65, and Spain 24. This is exclusive of journals of pharmacy, dentistry, etc., and of journals devoted to medical sects and isms. It will be seen that at present more of this class of literature appears in the English language than in any other, and that the number of journal contributions is greatest in the United States. A marked increase has occurred in the literature of hygiene during the last two years, and this especially in England, France, Germany and the United States. The literature of diseases of the nervous system, of ophthalmology, otology, dermatology and gynaecology is also increasing more rapidly than that of the more general branches.

The increase in both the amount and value of the literature of the several specialties in medicine is readily seen by a comparison of recent catalogue and bibliographies with those of twenty or thirty years ago, and this increase still continues at a greater rate than prevails in the more general branches. There are great differences of opinion as to the relative value of this increase and as to its future effect upon the profession, but there can be no doubt as to the fact. There must be specialties and specialists in medicine, and the results will be both good and evil, but the evils fall largely upon those specialists who have an insufficient general education, who attempt to construct the pyramid of their knowledge with the small end as a foundation. It has been said by Dr Hodgkin that "in medicine a specialist should be a skilled physician and something more, but that he is often something else—and something less."

"It is by the labor of specialists that many of the new channels for thought and research have been opened, and if the flood has sometimes seemed to spread too far, and to lose itself in shallow and sandy places, it has nevertheless tended to fertilize them in the end." In pursuance of the thought of journalism and its influence upon special departments of our science, I quote from tables given by Dr Billings, showing the number of volumes of medical journals and transactions published during the years 1879 and 1880.

TABLE I

Subjects	Journals and Transactions	Total		United States		Great Britain and her Colonies	
		1879	1880	1879	1880	1879	1880
General and Miscellaneous Practical Medicine	Journals	336	355	75	83	26	0
	Transactions	169	151	56	54	11	12
Anatomy Physiology Morphology Biology	Journals	26	27			4	4
	Transactions	5	3	1	1		
Diseases of Nervous System and Insanity	Journals	17	21	3	5	4	4
	Transactions	1					
Surgery	Journals	3	4		1		
	Transactions	2	2				
Ophthalmology	Journals	19	20	1	1	1	2
	Transactions	2	1				
Skin Diseases	Journals	5	5	1	1	1	1
	Transactions	1	1	1	1		
Otology	Journals	6	6	2	2		
	Transactions	1		1			
Gynaecology and Obstetrics	Journals	18	20	2	2	1	1
	Transactions	5	2	3	1	2	1
Hygiene and Jurisprudence	Journals	36	40	6	6	2	3
	Transactions	13	13	3	3	2	4
Pharmacy and Medical Chemistry	Journals	53	54	7	9	7	0
	Transactions	8	4	4	3		
Dentistry	Journals	10	15	6	10		
	Transactions						
Homoeopathy	Journals	33	36	17	16	4	4
	Transactions	5	4	3	3		
Eclectic Botanical Physico Medical	Journals	11	13	11	13		
	Transactions	2	2	2	2		
Popular Advertising Mineral Waters	Journals	35	33	8	10	4	4
	Transactions	1	1				
Veterinary	Journals	27	29	1	3	3	3
	Transactions						
Laryngology	Journals		2		1		
	Transactions		1		1		
Total	Journals	635	680	135	163	57	56
	Transactions	115	184	74	69	15	17

Thus we have many workers in many fields of labor. Something of the astonishing magnitude of the result accomplished is apparent as we turn the closely printed pages of the Index Medicus in its monthly visitation to our tables. This latest outcome of specialistic journalism is the greatest marvel of them all. He who has or thinks he has a new inspiration will do well to examine carefully its pages and see if his own thoughts have not been better expressed by another, and thus save himself the mortification and chagrin of being shown up by some merciless reviewer as having purloined the original observations of Dr Smith, or mutilated the wiser teachings of Mr Jones. He who seeks to know further than that which has been written will do well to consult the already published two volumes of the catalogue of the library of surgeon general's office—quarto volumes in double columns of fine type, each containing nearly one thousand pages, and yet, in the alphabetical arrangement, not through "C." This gives assurance of its value to the medical student when finished a work which cannot be overestimated by our profession, and, in its completion by authority of congress, every medical man should have an active interest. From it, although not a complete index of all that has been written, we gather some idea of the accumulated lore of the world's work in our especial field of labor.

TABLE II

Subjects	No of	Total		United States		Great Britain and Colonies	
		1879	1880	1879	1880	1879	1880
Anatomy and Physiology	Books	172	106	7	17	19	18
	Theses	29	30				
	Jour Articles	1371	1329	162	177	157	170
Pathology	Books	22	16	2	3		2
	Theses	10	9				
	Jour Articles	158	202	32	32	25	27
Practice of Medicine	Books	372	264	52	27	39	51
	Theses	257	235				
	Jour Articles	5799	4716	1454	1154	1085	918
Diseases of Nervous System	Books	135	144	38	32	19	30
	Theses	63	59				
	Jour Articles	1761	1667	400	410	342	303
Surgery	Books	135	150	18	27	5	23
	Theses	165	161				
	Jour Articles	3477	3087	894	823	844	706
Ophthalmology	Books	60	64	10	15	7	7
	Theses	44	34				
	Jour Articles	992	1007	187	228	81	101
Otology	Books	12	23	3	9	3	1
	Theses	8	9				
	Jour Articles	313	535	114	185	38	74
Skin Diseases	Books	33	44	3	9	2	8
	Theses	22	24				
	Jour Articles	441	547	63	95	115	101
Venereal	Books	35	29	1	2	4	4
	Theses	19	19				
	Jour Articles	399	348	76	72	45	31
Gynecology	Books	47	50	12	16	2	6
	Theses	44	27				
	Jour Articles	1130	1132	364	416	239	180
Obstetrics	Books	45	52	6	7	6	8
	Theses	17	19				
	Jour Articles	1270	1114	435	430	216	195
Hygiene	Books	178	247	62	80	29	48
	Theses	2	16				
	Jour Articles	891	1061	173	239	161	237
Jurisprudence	Books	15	30	2	2		1
	Theses	8	11				
	Jour Articles	368	726	72	167	44	103
General and Miscellaneous	Books	382	377	94	96	46	52
	Theses	29	63				
	Jour Articles	1799	2116	349	476	200	274
Total by Countries	Books	1643	1596	310	339	182	259
	Theses	743	746				
	Jour Articles	20169	19587	4781	4904	3592	3443

If this be the exponent of the result already attained, and this the rate of accumulation going on, what will the next century produce, and when will the subdivision of medical specialism end?

Infrequent vibrations are independent sounds, increase the rapidity, and we produce the musical note which, under skillful manipulation, becomes the smoothly flowing cadence which may blend into the harmony of a grand symphony

Selfishness, as usually understood, narrows the sphere of a man's action to the gratification of his personal ends, widens the thought to that which is for the real best good of the individual in the highest sense, and we verily become our brother's helper, doing away, as no longer needful, with bolts and bars, police courts, jails, prisons, armies, and navies, yea, even with our churches, except there to congregate for rejoicing, for self is swallowed up in the greater good. In this seeming diversity there is a unity of purpose of power and of result. In the enthusiasm of the young convert we are wont to exclaim, "I am of Paul, I of Apollos." In the wider truth we are led to see that these are only ways of individual working, and that the great end to be attained is the same.

Pure science is unadulterated truth, and he who seeks it for its own sake and the good which it may

bring, is enlisted in a common cause with one watchword under the same banner. But, says the objector, medicine is not a science, at the best it is but an imperfectly understood art. Mathematics pure and simple is accepted as an exponent of science, "for figures cannot lie." Is not our profession builded upon objective factors, and may these not be combined with results as clear, as definite, as demonstrative as figures? Facts, not representatives imaginary, are our factors, integers of no doubtful meaning, and he who contributes to their number makes the world his debtor.

Last year members of this Association visited the seemingly boundless prairies of the great Northwest, a *terra incognita* of a few years ago, roamed over by the wild Indian and the buffalo. Energetic companies were pushing the iron track in various directions out into the vast expanse without a single settlement as an objective point, or for miles and miles the up-curling smoke to mark the site of a single frontier cabin. When asked the purpose and object of this great expenditure and the hope of recompense, the cheerful reply always was given, "We are the developers of this vast country, these lands are waiting to yield harvests un hoped for by the Eastern farmer, and the poor, over-worked, half-starved of other continents will yet bless our efforts." This we call the energy, the push of the nineteenth century, which marks its deeds in monuments of useful labor.

A few years since and the physician who used the microscope was supposed to be dabbling in the æsthetics of his calling, what could be the practical outcome of this painstaking, time-consuming at best minutiae of labor? The realms of the infinite are beneath as well as above the natural ken of mankind. By the aid of this little instrument, from a knowledge of ultimate structure, there has been cleared up many a doubtful acceptance of function—yea, even the very basis of modern physiology established. From the standpoint of such observation a Virchow revolutionized all our ideas of pathology.

Tyndall and Pasteur showed that the ever-prevailing dust contained the particular causes of fermentation which were again demonstrated by careful microscopic observation to be dependent upon vegetable plants, so minute as heretofore to have escaped especial notice. It remained for the genius of a Lister to demonstrate that from the rapid development of such germs arose in large degree the danger to wounds.

By the avoidance of the dangers which such knowledge taught, untold numbers of lives have already been saved, and there is being elaborated a system of wound treatment based upon fundamental factors of truth, more sure and certain than the wildest dreams and fancies of the alchemist of old who concocted his healing balsams at the midnight hour under the divine influence of the stars. The same line of investigation applied to disease clears up the mysteries attendant upon the group of so-called contagious diseases and demonstrates, in many, an entity *suu-generis*. There is a particular something which from individual to individual breeds true and gives certain objective symptoms, and to these have been given definite

names Although daily widening, the border lines of our knowledge in these directions are easily reached, and the outlook would seem to indicate that much which had been considered settled will be revolutionized and the facts re-arranged, so that in the near future a large part of so-called medicine will be rewritten. Accept the demonstrations already made and grant the inferences therefrom to be correctly drawn, the science of medicine and surgery will be greatly simplified and its practical application many fold increased for good.

Volumes have been written and the best labor of many lives has been spent in the study of the reproductive processes of man and animals. A whole system of classification has developed therefrom, yet the observations thus made were truths only in part which led on this account to many erroneous conclusions, while from a broader study and deeper knowledge it remained for an Ercolani to demonstrate a single and universal fundamental law of physiological modality.

In the not remote past, Panacea has had a longer train of enthusiastic followers than her sister Hygeia. Now sanitary science, although scarcely popularized, very properly is taking its position in the front rank of all the means to be employed in the lessening of suffering and the prolongation of life. As in surgery so here, inscribed upon the key-stone of its great arch is the one word *clean*.

Cleanliness is next to godliness, and filthiness is the great physical sin. But in this realm, also, as in all others of science, order is being restored out of chaos and once having obtained the key the hieroglyphics of nature are translated with no uncertain meaning, and the simplicity and unity of the divine plan appears. To noxious gases no longer do we attribute the chief dangers arising from decomposition, but the rather thereby do we know that myriads of minute microscopic organisms have been preying upon and taking to pieces the waste albuminous products of life, again to restore them to a condition for higher utilization.

Thus the never ending cycle of life goes on, nothing wasted nothing lost, and as the infraction of the law of gravitation brings with it its penalty, so the excess of waste, over repair, and the devitalization of tissue which must ensue, render man the easy prey to agencies ordinarily invisible which stand ever ready to take to pieces his higher organization and refit it for new and perhaps better use.

The beginnings of knowledge are ever involved in mystery and doubt. The seeker is led into diversified and seeming labyrinthian paths, but like the labyrinth of old he who holds the key may safely tread its mazes and understand its plan. While we rejoice in that to which our profession has already attained, we look with longing eyes to the victories of the near future. To the better accomplishment of this, we welcome the open fields of subdivided duties and specialistic labor. We rejoice in the activity of united efforts to make of greatest avail these results by combining into societies and the publication of such observations in journals devoted to special interests.

In this spirit we welcome the new departure of our

grand national association at whose birthday fest we are here assembled. May the JOURNAL, which this meeting sanctions and to which this year gives christening, as the Association itself has been, be a developer of special labor. Like the States to which we swear fealty and whose organization we here represent, may the special fields of labor be carefully cultured, and like the grand old union which we ever delight to honor, the new JOURNAL be in the broadest sense the representative of the progress of the divine art of healing.

We should give encouragement to such publications, should teach the rank and file of our profession who in a certain sense must ever be general practitioners not to seek in other fields—as natural science or politics—an escape-valve for extra energy, but let each physician select some subdivision of his work where he may find, and if possible widen the boundary knowledge of his calling. Let him select the publication devoted to his field of special labor, contribute to its columns his own observations and uphold with generous sympathy every effort of real progress.

Last week Dr. Oliver Wendell Holmes, in his address of welcome to the clergy and laity at their grand annual festivity, referring to the theological dissensions that have from time to time arisen in the church, says: "Now it has been one of the flock that has got his foot on the lowermost of the five bars of the sheep-fold and the bell-wethers ring in a council to pull him back if they can or push him over if they must. Now it has been to examine a leaky creed and determine whether or not the hole could be stopped by the proper use of that famous plastic material known as theological soft solder."

Doctors may take warning from clerical antagonisms, for the hard spelter which our New York friends have recently been using in their attempts at patching the heel of the old craft have only opened up new leaks, and awakes the satirical criticism, "Behold how these brethren love one another." May the time soon come when we shall not broaden our phylacteries, but recognize only one law—the divine code of human brotherhood. Then, instead of antagonisms there will be developed yet more fully a generous rivalry for good.

We all possess diversity of gifts, but should be actuated and guided by one spirit. The cavalry shall not say to the infantry "You are too slow for our purpose," the infantry shall not say to the artillery "You are too heavy and cumbersome in your outfit," but all with one accord as members of the grand army strive to accomplish the work set before it. With this end attained, under the clear light of scientific truth, the *isms* which smack of ignorance will cease to exist, new fields of labor, more attractive because nearer to the great source of truth, will open and there will yet arise a more noble emulation for the still greater advancement of a united and harmonious profession.

THE annual meeting of the Health Association takes place

13 The session will probably

THE USE OF THE TREPINE IN TRAUMATIC EMPY- EMA ASSOCIATED WITH FISTULA

BY T. G. RICHARDSON, M.D., PROFESSOR OF SURGERY
IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY
OF LOUISIANA, NEW ORLEANS

[Read before the American Surgical Association at its late annual meeting
in Cincinnati May 31st 1883.]

Chronic suppurative pleuritis with an imperfect fistulous outlet, either external or bronchial, is not an uncommon result of gun-shot or other penetrating wounds of the thoracic cavity, and it is no secret that the resources of surgery have not heretofore offered much encouragement to the unfortunate sufferers. In the majority of such cases there is contraction or sinking in of the injured side, a constant discharge of fetid pus, persistent cough, irritative or septic fevers, and more or less rapid exhaustion of strength, terminating usually in death within a few months, or a year or two at the farthest.

Two main difficulties are encountered in the treatment of such cases: 1st, imperfect drainage, upon the correction of which the life of the patient depends, and, 2nd, permanent separation of the lung from the chest-wall by contraction of the organized exudative membrane upon the surface of the former. It is to these two points alone that I shall call attention in this brief contribution.

1st The serious obstacle to drainage in these cases is not the ordinary stenosis to which nearly all sinuses in the soft parts are liable, but approximation of the ribs, consequent upon the sinking or falling in of the chest-wall. Owing to the shortness and greater degree of fixedness of the first four or five ribs, very close approach of their adjacent borders is seldom seen except in quite young subjects. The same is true of the entire series near the spine in consequence of their close attachment to the vertebræ. But in other situations where greater latitude of motion exists, more especially along the lateral planes of the thorax below the fifth and sixth ribs, it is not rare, in the class of cases now under consideration, to find the adjacent edges closely applied, and sometimes even slightly imbricated. Under these circumstances it is impossible by any ordinary means to preserve satisfactory drainage by an opening, however extensive it may have been made, in an intercostal space. Tolerably strong silver canulæ have been indented by the approaching bones, and rubber tubing is frequently worse than useless. The result is entrance of air, decomposition of the pus, septic or irritative fever, and death more or less rapid as the disease may assume the former or the latter character.

2 The condition resulting from compression of the lung by inflammatory membrane, and consequent inability of the organ to expand to its original dimensions, is not necessarily fatal or altogether irremediable. Pyogenic sacs when freely drained, and at the same time protected from dessication, more especially if kept moist by antiseptic fluid or vapor, do not usually give rise to pyæmia or even to irritative fever. They are certainly sources of great discomfort and sometimes grievous annoyance to patients, but fortunately in

the class of cases here referred to, they are frequently obliterated by the operation employed for overcoming the obstacle to drainage, as I hope to be able presently to show.

Seeing, then, that the great danger in these cases depends mainly upon imperfect drainage, it is to the best method of correcting this difficulty that our efforts should be directed. The impracticability of securing a sufficiently free opening through one or more of the intercostal spaces, especially along the lateral and lower parts of the thoracic wall, has already been mentioned, and I may here add, that in this respect counter-openings, necessary as they often are, have no advantage over the original outlets. Under these circumstances, the surgeon's only resort is removal of a portion of one or more ribs. This may be accomplished by one or other of the ordinary methods of bone-resection, but, in my judgment, much more readily, and in most cases, with equally good results, by the use of a large trephine.

The idea of "trepanning" the thorax is not new. The operation is said to have been proposed by Hippocrates, and, in more modern times, has been modified by Reybard and adopted by Recamier, Trousseau and others in idiopathic empyema.¹ This consisted, however, in simply perforating a rib and inserting a canula, the greatest care being taken to prevent the ingress of air.

Lossen, of Heidelberg, ascribes the first suggestion of resection of the ribs, for what he terms retro-costal abscess, to Roser in 1859, and states that this surgeon performed the first operation of the kind in 1865, with the effect of curing his patient in fourteen days. He (Lossen) adds that in 1869 Simon excised a portion of the sixth rib in a case of empyema with fistula. The cavity ultimately closed, the favorable result being due in the opinion of the operator, to sinking in of the resected rib.²

Dr. Schneider, of Königsburg, in 1877, in a case of pleuritic suppuration, resulting from a gun-shot wound involving the third rib, removed from the second rib a section two inches in length from the fourth, 3.8 inches, from the fifth 3.8 inches, from sixth, 4.4 inches, and from the clavicle, 1.5 inches, by which means the chest-wall was allowed to sink in and obliterate the pleural cavity.³

It will thus be seen that the benefits derived from resection are threefold: 1, Unobstructed drainage, 2, free space for the application of antiseptics, and, 3, shrinkage of the chest-wall. In a large number of cases, more especially those in which the collection of pus is confined to the lower and lateral regions of the thorax, the mobility of the ribs, the flexibility of the long costal cartilages, and the yielding nature of the diaphragm permit the closing of quite large retro-costal cavities without any assistance at the hands of the surgeon other than may be necessary for drainage and asepsis. In such cases a large opening at the site of the fistula, or, if needs be, at a more dependent

¹ Traité de Pathologie Externe Par Aug. Vidal (de Casses) Tome IVme

² London Medical Record—An. Journal Med. Sciences July, 1878

³ Op. cit.

point, is all that is required. For this purpose the application of a trephine having a sufficiently large crown to embrace the entire breadth of a rib, commends itself as the readiest and safest method, and does not hinder subsequent resection of adjacent ribs, if such procedure should become necessary.

So far as I have been able to investigate the question of priority, this operation originated in New Orleans, and is almost peculiar to this city where it has been frequently performed within the past twenty years, and with increasing favor. Indeed, since it is no longer a rarity, those who resort to it seldom keep records of their cases. This is greatly to be regretted, and I am obliged to confess that I am myself probably more at fault than anyone else. But though defective in histories of individual cases, I trust that my presentation of the subject may not be discredited or its importance underrated. To the late Professor Warren Stone, Sr M D, is due the credit of having first performed this or any other method of resection of the ribs for empyema, as the following history will, I think, clearly prove.⁴

Case, Charles W, æt 17 years, was stabbed in the back with a large pocket-knife, in the hands of one of his college-mates, at a well-known institution in North Carolina, November 19, 1860. The wound penetrated the eight thoracic cavity about two inches from the spine, between the fifth and sixth ribs. Pleuro-pneumonia was the result, and very soon offensive pus, mixed with grumous blood, began to discharge from the opening. After several weeks confinement to bed the patient rallied, and was taken to Paris the following summer. There he was placed under the professional care of MM Velpeau, Maissonneuve and Nelaton, who attempted unsuccessfully to dilate the fistula and keep the cavity cleansed. No benefit having resulted after several weeks treatment, no operation proposed, and no encouragement to remain longer having been given, the patient was carried to his home in Mobile, Alabama, with every expectation of an early death.

A fatal result not having occurred, he was brought by his parents to New Orleans the following February, 1862, and admitted into the private infirmary, of which Professor Stone and I then had charge. At this time he was emaciated to an extreme degree, racked by cough and thoroughly exhausted by irritative fever and hectic. The right chest was somewhat contracted, and from a small fistulous opening at the site of the wound fetid pus was slowly exuding. Notwithstanding the nearness of the wound to the spine, in which situation the ribs are naturally so nearly fixed in their position that only the slightest movement can be effected, the two adjacent bones had become so nearly approximated that a No. 8 bougie could hardly be passed between. A careful examination disclosed a considerable collection of fluid in the pleural cavity.

To get rid of the latter, establish free drainage and render the walls of the sac aseptic, were clearly indicated, but how to accomplish these ends after the signal failure of the three most noted surgeons of France was not so distinctly perceived. The problem was solved, however, by my distinguished colleague, when, after contemplating the situation for a few moments, he turned to me and asked what would be the objection to enlarging the fistula by a trephine applied to the rib below. The proposition met with a hearty approval, and was immediately carried into execution. But the removal of the disc of bone involving the whole breadth of the rib did not complete the operation. In consequence of the densely thickened pleura the cavity was still unopened. To divide this freely, despite the possible wounding of the intercostal artery, was the work of a moment, when out gushed an immense stream of pus, so disgusting and overpowering in its odor as almost to drive everyone from the room. After fifteen or twenty ounces of this had escaped, and the flow in a measure ceased, the cavity was washed with a tepid solution of chlorinated soda, and a small roller bandage thrust into the opening to serve both as lint and plug. No hæmorrhage followed the operation, and I have since then been convinced by additional experience that in such cases the intercostal artery in the immediate vicinity of the fistula is obliterated by contraction of the fibrinous deposit. The plug was subsequently removed twice a day, and the cavity freely injected with the antiseptic fluid. The patient's health began to improve immediately, and in less than six weeks he was upon his feet and able to go unaccompanied wherever he desired. In the meantime the sac was undergoing steady diminution in size, partly by expansion of the lung, but principally by subsidence of the chest-wall, and we indulged the hope that it would ultimately become entirely obliterated, but in this we were disappointed.

For reasons not necessary to mention, the patient left the city soon afterward, and the following year, 1863, was sent to Europe, where he was advised to continue the treatment begun at New Orleans. In 1866, I met him in Paris, and was much gratified to find him in the enjoyment of a fair state of general health, notwithstanding the annoyance of daily emptying and disinfecting the sac. I measured the latter, and found it capable of holding six ounces, and learned that the secretion amounted to four ounces daily. The ribs upon the affected side were more considerably depressed, but the respiratory murmur could be distinctly heard in front.

Mr W returned to Mobile in 1868 where he remained until 1880, and is now living in New York. His health is feeble, but he is able to attend to all the ordinary duties of life without special distress. In a recent letter he informs me that the cavity has undergone no material change since 1866, that it still measures six inches in capacity, and secretes from two to three ounces of pus daily. The opening is nearly an inch in diameter.

Considering that the operation was original in its conception and performance,⁵ and resulted in the pre-

⁴ Since this paper was read my attention has been called by Professor S W Gross M D to an article in the *British Medical Journal* of January 21st 1860 entitled Case of Traumatic Empyema of sixteen months standing with Fistula treated successfully By Albert G Walter Surgeon Pittsburg, Pennsylvania United States. The case was a knife wound resulting in retro costal abscess which opened spontaneously December 8 1857 one inch of the eighth rib was removed with bone pliers. To secure better drainage two inches of the eighth and ninth ribs were removed in like manner February 11 1858 followed by injections of tincture of iodine. On January 1 1859 patient was reported entirely well.

⁵ I am confident that Professor Stone had never heard of the operation of Walter in this case, a recent footnote.

servation of a valuable life, it may seem invidious to criticize it, but one cannot now shut his eyes to the fact that if two or three ribs below the one which was trephined had been subsequently resected, the probability is that complete obliteration of the sac would have occurred

In connection with the preceding case, which I have deemed of sufficient interest to report in detail, I take the liberty of mentioning briefly another which came under my care only a few weeks later

CASE II Captain H, of the Confederate States Army, entered the infirmary March 15, 1862, suffering with empyema, resulting from a gun-shot wound received two or three months before. A small fistulous opening existed between the seventh and eighth ribs, an inch or more beyond their cartilages, but was not large enough to keep the cavity drained, nor could it be sufficiently dilated for this purpose in consequence of the nearness of the two adjacent ribs. Acting upon the experience I had already gained in the preceding case, I applied a large trephine to the eighth rib, immediately below the fistula, divided the thickened pleura, and thus discharged a large collection of fetid pus. The cavity was thoroughly cleansed by a weak solution of chlorinated soda, and a plug consisting of a small roller bandage pressed into the opening. The patient was sufficiently recovered to leave for his home in Texas a week or ten days afterwards with directions to continue the antiseptic injections until the cavity closed. I heard nothing from him for three years, when he presented himself at my office to show me the result. The side of the chest was somewhat contracted, but not enough to cause marked deformity, the opening was closed by a firm cicatrix, and the respiratory murmur could be heard everywhere within a short distance of this point. He informed me that complete closure occurred a few weeks after he left the Infirmary, and that since then the wound had given him no trouble whatever. From recent accounts Captain H is still alive, actively engaged in business, and in the enjoyment of most excellent health.

Complete recovery in this case was evidently due to the fact that the empyema was localized opposite the most moveable part of the thoracic walls. The sinking in of the latter was sufficient to meet the partially expanded lung, and the cavity being kept perfectly drained, obliteration was complete.

Since the last mentioned case, which occurred twenty years ago, several of similar character have been admitted into my wards in the Charity Hospital, and have invariably undergone the same treatment, but owing to the restlessness and nomadic habits of the patients it is impossible to state with any assurance of accuracy what have been the ultimate results. In every case, however, up to the time of their leaving the hospital there were good reasons for a favorable prognosis. As one of these cases presented an exceptional complication it is worthy of special mention.

CASE—M Barry, æt 27 years, came under my care in December, 1881. He had been shot from behind through the right lung a year previously, the ball emerging at the seventh intercostal space in front, a little in rear of the junction of the adjacent

ribs with their cartilages. A low form of pleuropneumonia followed, accompanied by a free discharge of offensive pus from the two external openings, and expectoration of similar fluid from the lung. After a protracted illness, during which the right side of the chest became greatly contracted below, the wound of entrance closed entirely, and, in consequence of the approximation of the ribs, the opening of exit was reduced to the size of a No 2 bougie. When I first saw him, he was suffering from irritative force and hectic, coughing up large quantities of fetid pus, and so reduced in strength that he could scarcely bear to be propped up in bed for examination. I succeeded, however, in determining the presence of air and pus in the pleural sac, a tolerably free communication between the latter and the bronchial passages, and a small fistulous opening in the seventh intercostal space.

A few days after the diagnosis was completed, and in the presence of the medical class of the University of Louisiana, I made an incision downward from the fistula across the eighth rib, applied the largest trephine to the latter, and then, with a bistoury, divided an unusually densely thickened pleura. Immediately air rushed into the cavity with a deep gurgling noise, and the next instant rushed out again bringing with it a large quantity of stinking pus which bespattered everyone around, and filled the amphitheater with its nauseous odor. At the same time, and, doubtless, in consequence of the ingress of cool air into the cavity, a violent cough occurred, accompanied by a shower of the same fowl fluid mixed with blood, much to the chagrin of the assistants, who had moved out of range of the opening in the side. It was altogether a most disgusting affair. However, not to be tedious, after the escape of more than a pint of pus, and when the cough and agitation had subsided, warm carbolized water was gently injected by means of a rubber bulb syringe, care being taken not to disturb the sac, and thus force the fluid into the bronchial passages.

I need not enter into the details of the subsequent treatment, farther than to say that the injection was repeated twice a day, the opening being in the meantime plugged with a small roller bandage. The patient rallied rapidly. In a week all communication between the suppurating cavity and the air-passages was closed, and in about six weeks from the time of the operation, the cavity was so nearly obliterated that the patient thought it unnecessary to remain longer in hospital, and insisted upon being discharged. I have good reason to believe that entire recovery was completed soon afterwards.

A NEW OPERATION FOR THE CURE OF RANULA

WITH REPORT OF A CASE BY T F PREWITT, M D,
ST LOUIS, MO

Read to the Section on Surgery and Anatomy

I do not propose to go into the literature of ranula, its mode of development, the special strictures involved, or a consideration of the differential diag-

nosis, but to call attention to a method of dealing with those cases that obstinately resist the ordinary methods of treatment, and which, so far as I am aware, has never been resorted to heretofore

The methods recommended and practiced by surgeons at this day, consist either of the introduction of a seton, injections into the sac, or partial excisions of it

Of these, almost all modern surgeons give preference to excisions of a portion of the sac—total excision being impracticable

I have no experience with the seton, or injections, having practiced partial excisions in the cases that have fallen under my care, and always with satisfactory results. Having met with a case of double ranula recently, in which this measure, followed by persistent catheterization failed, it occurred to me that I might, by a plastic operation, secure a permanently patulous orifice

Geo McG—n, æt 15, was brought to me May 6, 1882, by his brother-in-law—himself an intelligent physician, with a swelling under the left lower maxilla, nearly as large as a goose egg. It fluctuated freely, some portions of it seeming hard, however, and projected also into the mouth under the tongue, though the swelling here was not very great. A diagnosis of ranula was made, and a portion of the cyst wall in the floor of the mouth excised. A quantity of clear, transparent mucoid fluid escaped, spurting out several feet as the cyst was incised

In the course of two or three weeks this had contracted, and threatened to close, and catheterization was resorted to

In the meantime, a ranula had appeared under the tongue upon the right side, with translucent, bluish, thin walls, but not projecting beneath the jaw. This also was treated by excision of a portion of the cyst wall

In July the young man ceased to present himself, the orifice closed, the sacs rapidly filled, and Dr L again brought him to me in an alarming state from threatened suffocation. Both ranulæ were swollen and painful. Upon the left side the swelling extended well down towards the clavicle and sternum, and across the trachea in front. Upon the right side the ranula, was greatly swollen, meeting with that upon the left side under the chin, in a continuous swelling, from the angle of the jaw upon one side around to the opposite angle. Both inspiration and expiration were obstructed—the young man was flushed and feverish. From the rapidity of the occurrence of the symptoms, and their increasing gravity, it seemed as though tracheotomy might become necessary

I incised the cysts freely, permitting the free escape of the accumulated fluids, and directed hot fomentations to be persistently applied. This gave speedy relief to all the urgent symptoms

As contraction took place, I again resorted to catheterization, with the view of preventing reclosure. This was persevered in for two or three months, and was more effectual upon the left side, for the reason that the bougie, a soft conical rubber about 15 French, could be passed down for two inches and could be

felt below the margin of the jaw. Upon the right side a probe only could be used, and when its use was intermitted for a few days, it would close completely. I determined, therefore, to make a permanent opening by a plastic operation on that side. Carefully dissecting off the mucous membrane of the mouth over the cyst, denuding a surface as large as a nickel, I then incised the cyst-wall, turned it over, and tacked its free edge to the border of the mucous membrane of the mouth with fine silk sutures, thus, as it were, binding the opening in the cyst with mucous membrane, and interposing an effectual safeguard against its closure

Union by first intention took place, the stitches were removed upon the third day, and an orifice was secured that has remained patulous to this time

This was in November last. The young man became irregular in his attendance, and finally ceased to present himself to have the left side catheterized. On the 1st of April he came to me with considerable accumulation on the left side, and the orifice closed. I repeated the operation on that side, with a like fortunate result, and now, two months after the last operation, the openings are equally patulous upon the right side and upon the left, and he has no trouble whatever from re-accumulation of the fluid

RECORD OF PROCEEDINGS OF THE ANNUAL MEETING OF THE ASSOCIATION OF AMERICAN MEDICAL EDITORS IN CLEVELAND, JUNE 5, 1883

President N S Davis called the meeting to order in Case Hall, Cleveland, Ohio, Tuesday evening, June 5, at 7 30 P M. Dr John V Shoemaker, the Secretary, read the minutes of the previous meeting, which were adopted. The following members and the journals which they represent were then registered by the Secretary

Dr N S Davis, Chicago, Ill, Dr W C Glasgow, *St Louis Courier of Medicine*, St Louis Mo, Dr A N Bell, *Sanitarian*, New York, Dr C H Hughes, *Alienist and Neurologist*, St Louis, Mo, Dr A B Palmer, *The Physician and Surgeon*, Ann Arbor, Mich, Dr C B Stemen, *Fort Wayne Journal of Medical Science*, Fort Wayne, Ind, Dr John V Shoemaker, *The Medical Bulletin*, Philadelphia, Pa, Dr Frank Woodbury, *Medical Times*, Philadelphia, Pa, Dr H O Marcy, *The Anatomical and Surgical Annals*, Boston, Mass, Dr Thos J Gallagher, *Pittsburgh Medical Journal*, Pittsburgh, Pa, Dr L S McMurtry, *Louisville Medical News*, Louisville, Ky, Dr W M Carpenter, *Medical Record*, New York, Dr H H Mudd, *Weekly Medical Review*, St Louis, Mo, Dr Leartus Connor, *Detroit Lancet*, Detroit, Mich, Dr W C Wile, *New England Medical Monthly*, Sandy Hook, Conn, Dr Wm Brodie, *Therapeutic Gazette*, Detroit, Mich, Dr Deering Roberts, *Southern Practitioner*, Nashville, Tenn

On motion, the President appointed a committee to select officers for next year. Drs Wm Brodie, A B Palmer and L S McMurtry, the committee, reported the following: President—Dr Leartus Connor, Vice-

President—Dr Thos J Gallagher, Secretary—Dr John V Shoemaker

On motion, the Secretary was instructed to cast the ballot, and he announced the officers already reported by the committee

The time having arrived for the President's annual address, Dr N S Davis then spoke on the "Present Status and Tendency of the Medical Profession and of Medical Journalism in this Country" At the conclusion of his remarks, Dr Davis stated that the Association had concluded to include the two meetings already announced upon this occasion, and the next address in order would be by Dr H O Marcy, of Boston, Mass Dr Marcy, upon being introduced, spoke upon "Journalism Devoted to the Promotion and Concentration of Medical and Surgical Science in Special Departments"

On motion, the thanks of the Society were returned to Drs N S Davis and H O Marcy for their admirable and instructive productions, with the request that they be furnished to the editor of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION—should it be established—for publication

Dr Deering Roberts presented the following resolution

Resolved, That this Association recommend Dr N S Davis, of Chicago, to the American Medical Association, as being the most suitable editor for the JOURNAL which they shortly propose publishing

The resolution was unanimously carried

On motion, the Secretary was instructed to arrange a suitable programme at the next place of meeting, Washington, D C, in 1884

JOHN V SHOEMAKER, *Secretary*

MINUTES OF THE JUDICIAL COUNCIL OF THE AMERICAN MEDICAL SOCIETY

CLEVELAND, OHIO, June 5, 1883

The Judicial Council met in the private office of Dr X C Scott at 10 o'clock A M in accordance with the adjournment of last year

Present—Doctors J S Billings, J M Brown, Wm Brodie, N S Davis, N C Husted, Wm Lee, D A Linthicum, J C Reeves, M Sexton, A B Sloan, X C Scott, J M Toner, J H Warren, J K Bartlett

The first business in order, election of officers for the year, resulted in the choice of N S Davis, President, J K Bartlett, Secretary

No papers having been referred, and there being no unfinished business from last year, the Council then adjourned, to meet the next morning at nine o'clock

Wednesday, June 6—Council convened at 9 A M Papers from several State and local Medical Societies which had been referred, and which reaffirmed adherence to the Code of Ethics, were read, and ordered to be placed upon file

A petition from Dr D W Day had also been referred, asking for a rehearing in his case, which was adjudicated last year After examination of the papers, the following was unanimously adopted

Resolved, That the petition of Dr D W Day be

returned, with leave granted to accompany said petition by a written statement of the character of the new evidence which he proposes to introduce, and that any action in the case be deferred until the opening of the session of next year, on account of the impossibility of notifying all parties concerned during the present session

In the case of Dr E P Cook, who, before signing the certificate of application, erased the clause which had been inserted by the Secretary of the Association as a substitute for the registry book formerly used The Council was of the opinion that Dr Cook misunderstood the import of this addition, and Dr Davis was requested to explain the subject to the Association, which was done by a verbal report

A letter from Dr D H Goodwillie, of New York to the Chairman of the Committee of Arrangements, which had been referred to the Council, was read and laid upon the table Council then adjourned to meet at 9 o'clock A M of the next day

Thursday, June 7 Council met according to adjournment A protest against the registration of Dr D H Goodwillie, signed by two delegates from the New York Academy of Medicine, and which had been referred to the Council, was read, and the letter of Dr Goodwillie taken from the table, after a full consideration of the subject, it was unanimously

Resolved, 'That the evidence before us in the case of Dr D H Goodwillie is sufficient for adjudication,' also,

Resolved, "That decision in this case be deferred until the next Council session, and that the Secretary be directed to notify Dr Goodwillie that these papers are before us, and will be acted upon at the session of the Council on Friday morning at 9 o'clock

Three letters from individual members of the Association which had been referred, were read, and ordered to be placed upon file The Council then adjourned, to meet at 9 o'clock on Friday morning

Friday, June 8 Council assembled at 9 A M The unfinished business of the preceding day was resumed The letter written by Dr Goodwillie was read while he was present, as also the protests against his registration, he was asked if the letter fully and correctly expressed his present opinion, and replied that it did After his withdrawal, the Council unanimously

Resolved, "That in the case of Dr D H Goodwillie, who signed under protest the clause printed upon the registration blanks, which declared adherence to the Constitution, Bylaws, etc, of the Association, his registration be cancelled, and the annual dues paid by him be returned"

There being no farther business, the Council adjourned, to meet at 10 o'clock A M on the first day of the session of the Association at Washington, D C, May, 1883

J K BARTLETT,

Secretary of Judicial Council

MEMBERS OF JUDICIAL COUNCIL

1884—Wm Brodie, Mich, R B Cole, Cal, H D Holton, Vt, D A Linthicum, Ark, A B Sloan, Mo, J M Toner, D C, E W Clark, Iowa
1885—J M Brown, U S A, N S Davis, Ill,

N C Husted, N Y, Wm Lee, Md, J C Reeves, W Va, X C Scott, Ohio, M Sexton, Ind

1886—W O Baldwin, Ala, J S Billings, U S N, F D Cunningham, Iowa, E Grissom, N C, H O Marcy, Mass, N W Miller, Marine Hosp, R N Todd, Ind

MEDICAL PROGRESS

TWO DEATHS DURING THE ADMINISTRATION OF ANÆSTHETICS—Mr J H Lee Macintire, Medical Superintendent, Bristol Royal Infirmary, writes

"H C, male, aged 54, was admitted to the Bristol Royal Infirmary, December 30, 1881, suffering from a strangulated inguinal hernia of sixty four hours' standing. He had vomited almost incessantly from the first, and for the last twelve hours the vomited matter had been faecal. On admission his tongue was moist, his pulse weak but regular, and his aspect somewhat pinched. Chloroform was administered preparatory to an attempt at reduction by taxis, and everything went on well for the first minute and a half, a little over one drachm being inhaled, and this amount was divided into three parts. He then commenced to struggle a little, and his pulse was noticed to have improved, when he was seen to be about to vomit. The vomited matter measured almost a pint, and was stercoraceous and very fluid. Loud tracheal râles were now heard, and the breathing for the first time became embarrassed. He was immediately turned over, when nearly two quarts of fluid were ejected. His pupils were now widely dilated, his pulse failed, and he became cyanosed. Artificial respiration, inversion, cold affusion, and dragging forward of the tongue were at once tried, air entered the lungs freely, there were no tracheal râles, and the pupils became contracted. He now vomited again, or, rather, some more fluid poured out of his mouth. Attempts to resuscitate him were persisted in for over twenty minutes, but without avail. From the first arrest of pulse and respiration, neither heart-beat nor voluntary attempt at respiration was noticed. The first vomit occupied about a minute. The *post mortem* examination showed the heart healthy, aorta slightly atheromatous, kidneys granular, and a small quantity of food, which appeared to be partly digested milk, and which was about as large as a pea, was lodged just below the rima glottidis.

M T, female, aged 45, who had been in the ward some days with an abdominal tumor was, on April 19, 1883, examined under the influence of an anæsthetic mixture consisting of one part of chloroform to three parts of ether. She was known to have chronic bronchitis, and was suspected of phthisis at the right apex. She had taken some beef-tea and egg a short time before the examination. She took the anæsthetic very well, becoming unconscious in three minutes and remaining so for ten, when her breathing was noticed to be growing shallow, but her pulse, color, and pupils remained unaltered. She took three respirations, each more shallow than its predecessor, and gave signs of being about to vomit. She was just about to be turned over on her left side, when her

breathing stopped, whilst her heart could still be seen acting. Her pulse then failed, her face became livid, and her pupils about two-thirds dilated. Inversion and artificial respiration were immediately tried, and air entered the lungs freely, with a total absence of tracheal râles. The pupils were now noticed to be about three-fourths dilated, and some half digested liquid food oozed out of her mouth. In case any might have entered the larynx, although there was no reason to suspect such an accident, tracheotomy was performed. Artificial respiration was kept up for half an hour, and inhalations of nitrite of amyl, injections of ether, cold affusion, and an enema of brandy were also unsuccessfully tried, the patient showing no sign of returning animation from the first, with the exception of closing her jaws firmly about five minutes after the commencement of artificial respiration. *Post mortem* examination showed the heart-vessels and brain to be healthy, and there was no food in the air passages. The abdominal tumor was due to tubercular peritonitis, and there was general bronchitis, and some tubercle was found in the apex of the right lung.

In both cases, the anæsthetic was administered on a flannel mask which covered the nose and mouth—*British Medical Journal*

CANNABIS INDICA, A VALUABLE REMEDY IN MENORRHAGIA—Mr J Brown, of Bacup observes

"Indian hemp has been vaunted as an anodyne and hypnotic, having the good qualities of opium without its evils. Also in dysmenorrhœa and ismuria it has not proved of much benefit. The drug has almost invariably produced some marked physiological effect, even in small doses. Text-books give the dose as ten minims and upward, but five minims is the largest dose that should be given at first. If bought from a good house the drug is not inert or unreliable. A drug having such marked physiological action ought to have a specific use as a therapeutic agent. Indian hemp has such specific use in menorrhagia—there is no medicine which has given such good results, for this reason, it ought to take the first place as a remedy in menorrhagia, then bromide of potassium and other drugs. The *modus operandi* I cannot explain, unless it be that it diverts a larger proportion of blood to the brain, and lessens the muscular force of the heart. A few doses are sufficient, the following is the prescription. *R* tincture cannabis indicæ $\mathfrak{m} \times \times$ pulveris tragacanthæ \mathfrak{ss} , spiritus chlorof \mathfrak{ss} , aquam ad \mathfrak{ss} ij. (One ounce every three hours. Four years ago I was called to see Mrs W, aged forty multipara. She had suffered from menorrhagia for several months. Her medical attendant had tried the ordinary remedies without success. Indian hemp was given as above. Its action was speedy and certain. Only one bottle was taken. She was afterwards treated for anemia, due to loss of blood. Twelve months after this my patient sent for a bottle of the 'green medicine.' I learned afterward that she had sent this medicine to a lady friend, who had been unsuccessfully treated by another medical man for several months for the same complaint. It proved equally successful. The tincture

ures are so few, that I venture to call it a specific in menorrhagia. The drug deserves a trial. It may occasionally fail, this, however, is not to be wondered at in a complaint due to so many different causes, and associated with anæmia and other cases of plethora."

Robert Batho, M.D., M.R.C.P., Castletown, Isle of Man, writes in reference to the same subject: "Considerable experience of its employment in menorrhagia, more especially in India, has convinced me that it is, in that country at all events, one of the most reliable means at our disposal. I feel inclined to go further, and state that it is *par excellence* the remedy for that condition, which, unfortunately, is very frequent in India."

I have ordered it, not once, but repeatedly, in such cases, and always with satisfactory results. The form used has been the tincture, and the dose ten to twenty minims, repeated once or twice in the twenty-four hours. It is so certain in its power of controlling menorrhagia, that it is a valuable aid to diagnosis in cases where it is uncertain whether an early abortion may or may not have occurred. Over the hæmorrhage attending the latter condition, it appears to exercise but little force. I can recall one case in my practice in India, where my patient had lost profusely at each period for years, until the tincture was ordered, subsequently, by commencing its use, as a matter of routine, at the commencement of each flow, the amount was reduced to the ordinary limits, with corresponding benefit to the general health. Neither in this, nor in any other instance in which I prescribed the drug, were any disagreeable physiological effects observed.

I could say a few words in its favor, as to its action in allaying irritative cough, but I prefer confining myself to a point on which experience has left me no room for doubt"—*British Medical Journal*

SHORT SIGHT IN SCHOOL CHILDREN—Fleet Surgeon Henry Hadlow, R.N., gives a very useful lesson in an article in the *British Medical Journal* of May 19, which is the result of his inquiries into the management of the Greenwich Hospital School. At this school boys were admitted to prepare for the Navy. At the age of thirteen they were submitted to a special physical examination, which included the special test for eye-sight by Snellen's types, which they were required to read at the full distance, consequently every boy in the school above the age of thirteen years must have had perfect vision at this period. At fifteen and a half years of age out of 1,074 of these same boys, no less than sixty were rejected for the Royal Navy on account of defective sight, the cause in almost every case being simple myopia, that is to say, that in two and a half years five and a half per cent developed a degree of myopia that unfitted them for a service, for which they had undergone a long and expensive training. Further, in what is termed the select school and special class, out of one hundred boys there were seventeen rejections, the myopia also being of a higher grade than that found in the rest of the school.

This is adding evidence to an evil to which our

attention has previously been called—that short sightedness is developed during school life, and that it is found most frequently and of the highest grades amongst the most advanced classes, but it is well to follow Mr Hadlow in his further examination into the condition of the school itself as regards the production of this affection, because, as he says, not only is asthenopia or myopia a most serious disqualification for many conditions of life, but we have every reason to believe that the predisposition to become short-sighted is hereditary, and that the children of short-sighted parents have a much greater tendency to develop the same defect, if placed under unfavorable conditions, than others. He found the desks and stools of the same height for boys of all sizes and ages, with no backs, narrow seats placed much too far from the edge of the desk, and want of proportion between the height of the two. Some of the rooms were so dark in corners—and very large corners, too—that it would be impossible on a winter's day for the boys to see to do their work properly without gas, further, in every case the desks were so placed that the boys must sit with their backs to the light.

This must not be considered as the present condition of the school referred to, for it has been remedied in a most complete manner. The desks and chairs are graded to suit the size, there is a board behind on the chair to support the loins just above the hips, the edge of the desk is perpendicularly above the front of the seat, and the inclination of the desk can be altered from 20° for writing to 40° for reading, whilst a foot-board is attached, on which the feet rest naturally and easily. Obstructive partitions have been removed and windows inserted, to give not only a sufficiency of light, but from above and from the left.

But with all these improvements, they fail in many cases where the continuous application to daily study is too prolonged, as in a report on the education of the young from Alsace-Lorraine, where no fewer than eighty per cent were found physically unfitted for the army. With them, boys of thirteen have, on an average, 'about eight hours' study a day, here the extreme prevalence of myopia is well known.

FOREIGN BODY IN THE URETHRA Dr George Hunter, M.D., Linlithgow, writes

"An elderly gentleman, the subject of dysuria from prostatic enlargement, thought to aid the efforts of his bladder in its evacuation by insinuating the rounded head of his wife's veil-pin into the orifice of his urethra, and thereby opening up the passage. To his dismay, in its descent downwards it slipped from his fingers, and the point of the pin disappeared from his sight. His attempts at removal only caused it to make its way further back, and soon a discharge of blood from the meatus, and urgent but ineffectual attempts to pass urine, alarmed him, and induced him to send for me. On my arrival, I could just make out the head of the pin in the membranous urethra in front of the prostate, and could feel the point anterior to the scrotum. To remove it, I fixed the head by pressing on it from behind forwards, and then impaled the

urethra against the point. By steady pressure and traction on the point as soon as it emerged from the under surface of the penis, the whole length of the pin was pulled through, only the head remaining in the urethra. The point was then depressed towards the perinæum, and by compressing the flaccid penis, in its longitudinal axis, the round head of the pin was easily passed through the meatus, and the entire pin withdrawn. In its removal, not a drop of blood was lost, and the puncture remaining was not more severe than that resulting from the use of the ordinary hypodermic needle. Beyond enjoining rest and quiet for the first twelve hours, nothing further was prescribed, and my patient was next day in his usual health."—*British Medical Journal*

CASE OF ACUTE PERITONITIS FOLLOWING INTESTINAL PERFORATION—Dr William Julius Mickle, of Bow, describes the following case.

"M. M., aged 45, formerly a soldier in the 17th regiment, was a helper at a laundry for some years, and had made no complaint of any malady whatever, although some mutual obstruction had been made out. Early one morning, complaining of constipation, he was given an aperient. After breakfast the bowels were freely moved. Then, seeming well, he worked all day until about 4.30 P.M., when he felt abdominal pains, or "cramps," as he called them, coming on, returned to his ward, laid himself down, and looked pale. Next, he was doubled up, groaning, breathing noisily, and complained of "cramps" over the belly, which was tender, and which he would not allow one to examine. The pain was obviously intense. The pulse was frequent, and variable in this respect, somewhat sharp. Tincture of opium was given internally, and a light hot poultice and turpentine were applied to the abdomen. At 9 P.M., there was slight vomiting of food and mucus, and later of a greenish fluid.

Next morning, he lay either on his back or on the right side, with the knees drawn up. The pain was continuous, and he stated it to be worst along the middle line, the tenderness, however, was highly marked over the cæcum, and in both flanks were slight dulness on percussion, and doubtful obscure fluctuation. He was eructating and then spitting out in mouthfuls, a dark-greenish, flaky and flocculent, soup-like material, with brownish, soft, lather-like flakes floating on the surface. Temperature 99.7°, pulse 117, soft, feeble, respiration 38, somewhat labored, moaning. No urine was passed. The bowels were not moved, the tongue was moist, with a greenish and brownish coat. The tips of the ears, nose, and fingers were chilly. The eyes were heavy, the face was of leaden hue. The pain was heavy and continuous, with exacerbations, during which it resembled the piercing of knives. There was no sign of tumour, strangulation, or intussusception of bowels.

I ordered him to have one third of a grain of morphia hypodermically, also to take, each hour, five minims of tincture of belladonna, one minim of dilute hydrocyanic acid, and one-sixteenth of a grain of morphia. He took three doses of this. Half an ounce of milk

was given every half-hour. At 1.30 P.M., his nose was cold, his features collapsed, pulse feeble, prostration was advancing. At 3 P.M., he was somewhat drowsy, respiration varied from 18 to 24, and the pulse from 110 to 120, feeble, soft, small, becoming imperceptible. The pupils were moderately contracted. The patient, in reply to inquiries, said that the pain was relieved. After this, he gradually became comatose, and the respiration irregular, jerking, as if by several contractions of diaphragm, and later hiccough came on. Brandy was given by the mouth and it and carbonate of ammonia by the rectum, while heat was applied to the feet. The pulse remained at from 110 to 120, and death occurred at 5 P.M., or twenty-four hours and a half after the first complaint of abdominal pain.

Necropsy—Omitting most of the parts examined, it need only be said that the abdominal cavity contained some turbid fluid, partly escaped from the bowel, and with sanguineo-purulent material floating in it. These were mainly on the left side of the abdomen. The parietal peritoneum was of an almost uniform scarlet redness. The great omentum was converted into a red fleece, the under surface of which was smeared in parts with purulent fluid. The appendices epiploicæ were smeared in a similar way, as were also some coils of the small intestine, the other coils being slightly lymph-glued together. There was general inflammatory redness of the outer coat of the exposed coils of intestine. In the upper part of the small intestine were much yellow mucus and semifæcal matter. In the descending colon and rectum was patchy redness, and in parts slight excoriation. In the lower part of the sigmoid flexure was a perforating ulcer, with bevelled edges and sloughy surface, which was open through an appendix epiploica into the abdominal cavity. Another ulcer with greenish edges was just beginning to perforate. The heart contained clots and treacly-fluid blood, the endocardium was deeply blood-stained, there was mitral stenosis, the mitral valve was thickened, calcareous, and deformed. There was some hypertrophy and dilatation, especially of the left auricle. The heart weighed fifteen ounces. Some large gall-stones were found in the gall-bladder.

REMARKS—As to the duration of this case—it lasted twenty-four hours and a half—it may be said that, writing of peritonitis, Dr Habershon stated that instances of intestinal perforation are generally fatal in from five to ten hours, and Dr J. R. Wardell mentions that, in his cases, death occurred in from seven to twenty-three hours, and cites duration-periods from other authors varying from four to one hundred and five hours.

Possibly constipation, or passing gall-stones, led to the irritation and ulceration of old cicatrices in the colon, results of disease contracted when campaigning long before."

British Medical Journal

REMARKABLE MONSTROSITY
"On November 2, my late
den, sent for me to a case of

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had been some hours in labor. It was a breech presentation, and favorable progress had been made until the pelvic outlet was reached. There the head became jammed tightly, and during the next two hours, did not advance in the smallest degree. As the pains were ceasing, notwithstanding the administration of ergot, it became necessary to deliver instrumentally. Several attempts at extraction by forceps proved futile, and, as exhaustion was threatened, the blunt hook was employed, and after an hour's hard work, delivery was accomplished. The child was a full-grown anencephaloid male, life was extinct but very recently. The bones of the face were normally developed, but there was no calvarium. The cerebral substance was wanting, and its place was filled with bloody serum and a material which looked like a placenta, to this the placenta proper was attached by its membranes. It was very large, measuring $6\frac{1}{4}$ in. by $3\frac{1}{2}$ in., and was deeply fissured at its anterior third. Two abortive cerebellar lobes were present. At the upper portion of the spine there was an opening into the spinal canal, from which sprang a lobulated body. Four cords were present, three focussing at this point, one running from the placentoid cerebral substance, the other from the placenta, and the third joining the cord proper, a few inches from the umbilicus, the fourth passed from the placenta in the usual way, and presented a slight degree of fatty degeneration. It was rather large. The other cords had undergone fatty degeneration to a great extent. Being rather pressed for time, we were obliged to be content with a cursory examination."—*British Medical Journal*

TRANSPOSITION OF VISCERA—W. P., a sign writer, died, aged 40, of general paralysis of three years' standing. During life the transposition of the areas of percussion-dulness of the liver and spleen had been noticed. Heart showed aortic ventricle on right side thicker, stronger, and forming cardiac apex, pulmonary ventricle on left side, auricle receiving systemic veins on left side, auricle receiving pulmonary veins on right side—thin septum between, with patent foramen ovale. Aortic arch directed towards the right, curved down vertebral column and descended on its anterior and right aspect, through the thorax. Gullet passed down left anterior aspect of vertebral column, crossed to right below to gain oesophageal opening in diaphragm. Left lung had an imperfectly divided off middle lobe, right lung had made imperfect middle lobe, spleen in right hypochondrium. Liver had larger lobe in left hypochondrium and epigastrium, smaller lobe extending rightwards to spleen. Stomach had cardiac opening and cardiac end to right, and pylorus to left, of middle line. Duodenum to left end of ileum, the caecum, and the appendix vermiformis were in the left inguinal region. Ascending colon left, descending colon right, sigmoid flexure in right iliac fossa, and rectum slightly to the right side. Kidney on the left weighed 5 ozs., on the right $4\frac{1}{2}$ ozs.—WILLIAM JULIUS MICKLE, M.D., *British Medical Journal*, May 19

FOREIGN BODY IN URETHRA—J. B. Carter, æt. 42—admitted into hospital—the day before had been

drinking heavily, and in the evening was seized with severe pain in the perineal region, accompanied with some hæmaturia. On examination, a foreign body could be felt lying along the under side of the penis, from its lower half towards the perineum, and about the middle of the penis a sharp point was discovered. A small incision was made through the skin over it, and the point of a large black pin was then forced through, seized by a pair of forceps, and drawn out, it was between three and four inches in length. The head of the pin was then found intact in the urethra, the point of the pin was therefore depressed, and the head pushed up through the urethra and drawn out through its orifice. A catheter was passed, and left in the bladder for twenty-four hours, and the wound dressed with carbolic oil. Blood was passed in the urine several times afterwards. No urine escaped by the wound, and at the end of the week the man was sent out, cured.—WM. CURTIS, *British Medical Journal*

THE OXYOTIC ACTION OF QUININE—Mr. Hartigan, M.A.Q.C.P., of Hong Kong, writes

"In three different cases, I have had on several occasions to discontinue the use of quinine, because it brought on 'labor-pains,' though the doses were small, varying from three to five grains. In one of these, during a previous pregnancy, another medical man used quinine, and discontinued it for a similar reason. All three were in fair general health, suffering only from slight malarious fever, and had never aborted. One case has come under my notice, in which abortion took place, without apparent cause, after a ten-grain dose of quinine. The patient was the mother of several children, had not previously aborted, was in good health, and took the quinine to cure facial neuralgia. I know of another case of abortion occurring under similar circumstances after quinine. This action of the drug is known to the Chinese, who take it (I am told with success) for the purpose of producing abortion, following its use by copious draughts of hot tea. I have myself heard a Chinese 'amah' (i.e., female servant), recommend it. Quinine certainly, in some cases, increases the menstrual flow."—*British Medical Journal*

JEQUIRITY (the abrus precatorius) IN GRANULAR LIDS—Dr. W. A. Braley, Ophthalmic Surgeon, Evelina Hospital, Assistant Ophthalmic Surgeon, Guy's Hospital, gives the treatment of three cases (*British Med. Jour.* May 19), by this drug, introduced from the natives of Brazil, by DeWecker of Paris. The seeds are used in the form of a strong infusion, and applied to, or between the lids, thrice daily, until a severe conjunctivitis of a purulent or diphtheritic type is set up. He finds it to diminish, very considerably, the pain and photophobia, and to have a decided influence in cleaning up the corner, and could not succeed in inoculating into the sound eye the ophthalmia produced by this agent.

ON THE LOCAL USE OF ANTISEPTICS AFTER LABOR AND ABORTION—Dr. W. Gill Wylie, in a paper read before the Medical Society of the County of New

York, and reported in the *N Y Med Journal*, June 23 gives it as his practice 1st, to make a vaginal examination, in all cases, some weeks before labor, and, if there is any leucorrhœa, to give warm vaginal douches, 1 to 50 sol acid carbol twice daily, and as soon as labor begins, wash the vagina and vulva with this solution

2nd To prepare the room by the removal of all useless and old stuffy furniture, and to disinfect everything with the spray of carbolic acid solution The linen so treated is changed twice every day, and two sets of blankets are aired and used alternately All instruments and hands used are first washed in sol (1 to 20) acid carbol

3rd When labor begins, the spray is set going, and after labor, every napkin is carbolized, or carbolized muslin or oakum is used to catch the lochia, and changed, according to the discharge, every hour or two, night and day

4th Just after labor, the parts are thoroughly washed with a 1 to 50 sol acid carbol, and vaginal douches are given from two to four times a day, and kept up for six or ten days, as required

5th The test required is the total absence of any odor pertaining to the lying-in chamber

In thirty-six cases so treated by him, none had a rise of temperature over 102 F at any time He refers to four cases of abortion, detailing two of them, and considers, 1st, that septic matter must be excluded with great care, 2nd, that perfect drainage is very essential, as versions, and especially flexions, may cause retention of the lochia, and that contraction and swelling of the os internum very frequently is an active cause in preventing a constant and free drainage, 3rd, that when septicaemia has begun within ten or twelve hours after the first chill or high temperature, almost all cases may be cured by perfecting the drainage, and by washing out the cavity of the vagina or uterus by frequent douches of sol (1 to 40, to 1 to 20) acid carbol

He gives two instances of the dangers of intra-uterine injection In one case, where there were symptoms of septicaemia after an operation on the cervix, very great shock followed an intra-uterine injection, but a very small catheter was used, and when the bed-pan was removed, not an ounce of the solution was in it, nor had it escaped on the bed, for the catheter undoubtedly entered the Fallopian tube, and the fluid was freed into the abdominal cavity The patient recovered in eighteen months, after suffering during that time with an extensive pelvic abscess In another case, a patient with puerperal fever was rapidly sinking, having been brought into the hospital eight hours previously with a very high temperature One carbolic intra-uterine injection had been given, which was followed by a slight convulsion and a fainting turn, temp 105°, pulse 130, with profuse perspiration, etc The injections were kept up every half-hour The woman rapidly improved, and made a good recovery If a large tube is used after the os internum is well contracted, the injection may distend the uterine cavity, be forced through the Fallopian tube into the peritoneal cavity, or a clot may be forced into a vein or through a sinus, and do harm

He recommends a gum elastic catheter, with a ten and a half inch mark to limit the length introduced into the uterus

In the discussion on this paper, Dr Munde directed attention to the fact that in all cases of puerperal septicaemia, there was a time when intra-uterine injections not only did no good, but were even positively injurious 1 In cases where the lochia were not at all offensive, and the seat of infection seemed already to have spread to the parametric tissues 2 Where the injections had been used faithfully for 48 to 72 hours with little or no benefit—in the latter they seemed to provoke a traumatic rise of temperature, and sometimes to be followed by more or less hemorrhage

Dr McLean, to avoid the dangers of intra uterine injection, used a continuous stream as from the fountain syringe, and with a soft catheter

CIGARETTE-SMOKING—This habit is receiving some consideration at present from the medical press The *New York Medical Journal*, of June 23, in an editorial, considers that there is no just ground for looking upon cigarettes, used with proper precautions, as in any way more capable of doing harm than either cigars or tobacco It is asserted, says the editor, that the paper used in making many brands of cigarettes contains matter that is poisonous, and arsenic is usually mentioned in this connection If it were really present serious and unmistakable instances of arsenical poisoning would long before this have been traced to cigarettes Another allegation is that cigarettes are sophisticated with some preparation of opium If we compare the market value of tobacco with that of opium, we shall find that it will not suit the purposes of the falsifier to adulterate a cheap commodity with one that is expensive Cigarettes furnish an inducement to more frequent smoking it is true, but it takes a number of cigarettes to equal a cigar in narcotic effect, and being cheaper they are more likely to be smoked in part only than is the cigar, and the nicotine is more apt to accumulate in the unsmoked end of either for absorption in larger quantities One fault, that of inhalation into the lungs, and of exhalation through the nostrils, is more apt to belong to the cigarette smoker than to one who uses the cigar or pipe, and thus to increase the extent of absorbing mucus membrane

The London *Lancet*, May 26, considers that if cigarettes were smoked as in the East, where, according to Sir Henry Thompson, Turkish ladies consume fifty or upwards in a day by taking a few whiffs and then throwing the cigarette away, perhaps no harm would ensue, but to take a cigarette between the lips and keep it there until smoked out, deposits a larger quantity of nicotine from the finely cut leaf than that thrown by the smoke of a cigar or pipe The sphygmographia tracings are more characteristic in the cigarette smoker than in others, of the depression produced by tobacco on the vaso motor center and nerves Further the dryness of the mouth and throat and the consequent demand for "brandy and soda," or some other stimulating beverage is more apt to follow the use of cigarette. of or

pipes Sir Henry Thompson, it seems, has not found it beneath his dignity to invent a form of cigarette-holder which opens transversely in the middle and admits of being stuffed with cotton-wool, which takes up the nicotine from the smoke in passing through it, and can be frequently renewed. Used in this way he regards the cigarette as the least potent, and therefore the least injurious, form of tobacco smoking.

A CASE OF ADDISON'S DISEASE—In the report of the Western Infirmary, *Glasgow Medical Journal* June, a case of this disease is detailed at considerable length in a blacksmith, æt 38, who attributed the cause of his sickness to a strain received while lifting, and giving him a constant pain in the right hypochondriac region. The discoloration of the skin came on very gradually soon after this, and his friends at first accused him of not having washed his face thoroughly. The strain was received in January, 1882, in July the skin became very dark in color. In August had inflammation of and purulent discharge from left lower jaw. In September diarrhoea. In December an attack resembling typhoid fever. In January, 1883, was taken with headache and shivering, followed by pains in the right side of the back, extending down the right groin and into the right testicle. This attack lasted three weeks, after which he gained flesh and got stronger. At present is not emaciated, skin cool and soft, temperature generally 98. No alteration of blood seen in microscopic inspection, bowels regular, appetite good, tongue appears as if slightly stained with ink, mucous membrane inside lips of a mottled, brown color, and on the inner side of each cheek opposite the teeth the pigmentation is of a blackish tinge. The pharyngeal mucous membrane is congested but not pigmented, has always been healthy, had scarlet fever when young, denies any venereal disease, cicatrices in right groin where he had a suppurating bubo twenty years previous, takes whisky freely, no hereditary taint discovered.

In the face he has the complexion of an Arab. The discoloration is especially distinct on the alæ of the nose, also below each eye. The conjunctivæ appear very white. The brown color of the face shades off and becomes lighter in those parts that are covered. The skin of his neck is very dark behind but gradually gets of a lighter shade as we pass forwards. At the back of the neck are two small cicatrices caused by burns, these are discolored slightly, but around them is a distinct zone of skin where the pigment is more abundant. A streak of pigmentation runs down the lower part of the back in the middle line, the color being deeper over each spinous process. In the lower part of the lumbar region, on the right side, there is an area of the skin where the pigment is very abundant, it corresponds to the place where a turpentine stupe was applied. The skin is discolored above each clavicle where the braces cross. The skin on the chest is very slightly tinged, becoming more marked as we approach the shoulders, and very dark in the axillary fold. The nipples are of brownish black color, and there is a slight secondary areola. The color becomes darker on the abdomen, there is

a narrow streak of pigment from the xiphoid cartilage to the pubes, the navel is darker than usual, the scrotum is the part most deeply pigmented, the penis being also dark brown, the legs are pigmented more posteriorly than anteriorly, about the malleoli and over the dorsa of the feet, the right arm is more marked than the left, the inner side than the outer side, the skin around the olecranon is deeply pigmented. The backs of the hands look as if stained by the juice of walnut bulbs, the palms are almost free from pigment. The color of the skin over the body is darker when the surface is cold.

NEW INVENTIONS

AN INSTRUMENT FOR COLLECTING MORBIFIC GERMS EXHALED WITH THE BREATH—Mr Francis Vacher, of Birkenhead, has devised an instrument, a wooden cut of which is given, with the description in the *Sanitary Record* of London, May 15, especially intended for measles, but which might be applied also to scarlatina and typhus fever. It consists of a hard metal cap to fit over the nose and mouth, the border touching the face being lined with an India rubber air cushion fitted with a tap. On one side is a valve opening inwards, and at the apex of the cap is a fine hole through which the exhaled breath is directed on a glass slip coated with one part of white of egg to three parts of distilled water. Before being used the instrument is plunged in warm water (about 100° Fahr) so that the breath may not condense upon the metal. It is well to add to the water a small quantity of some simple disinfectant. As soon as the cap is warmed and dried, the glass slip charged with albumen is placed in position, and the patient is directed to breathe five or six times into the cap. Then the glass is withdrawn and dried over a spirit lamp, and the instrument is cleansed. A sample of healthy breath should be taken at the same time and the two samples may be stained with vesuvian brown and mounted in Canada balsam at any convenient time.

EDITORIAL

THE MEETING IN CLEVELAND—The recent meeting of the national Medical Association in Cleveland, was a successful one in all important respects. The large number in attendance, representing the profession in all parts of the country, indicated that the interest in the organization was still on the increase. The number of topics of general interest, such as the procurement of adequate provision for the Army Medical Museum and Library by Congress, the gaining of more knowledge concerning the meteorological and sanitary condition of important health resorts, the communication from a committee of the British Medical Association in relation to co-incident observations regarding the prevalence of certain diseases, the better training of nurses for the sick, etc., equally indicated that its influence both in and out of the profession was felt and appreciated. The number and character of the addresses, reports, and papers in

the several Sections, indicated decided advancement in the more scientific part of the Association work. And, certainly, the number and high character of the social entertainments, afforded ample proof that the importance of the organization was well appreciated by the citizens of Cleveland. All the business in the general sessions was transacted in good order and with a commendable degree of harmony and good feeling. Dr. Atlee presided with dignity, and all the officers, including the committee of arrangements, discharged their duties with fidelity and success. And, in the selection of that well-known author and Nestor of the profession, Dr. Austin Flint, Sr., for President, the present year, the Association performed an act alike complimentary to itself, to the recipient of its highest honor and satisfactory to the whole profession. Surely, none of these things betoken either premature weakness, or waning influence, on the part of our national medical organization. We only wish those who keep themselves at a distance, and take council of their own suspicions and fears, would come inside of the meetings and have both dispelled, by lending a helping hand in the important work of harmonizing and advancing the interests of one of the noblest professions that exist among men.

DO MORAL PRINCIPLES CHANGE?—Are they subject to the Darwinian law of evolution? Has time rendered the declarations of the decalogue obsolete?

We are constrained to ask the foregoing questions by expressions we hear occasionally concerning the National Code of Ethics, by a class of physicians who are properly represented by Dr. S. Pollak, in the preamble and resolutions he offered to the recent meeting of the American Medical Association, and which can be found in the record of proceedings contained in the first number of this JOURNAL. He says:

"The Code of Ethics has an existence coeval with the organization of the American Medical Association. It was absolutely necessary then, and it cannot be entirely dispensed with now. But in thirty-four years this country has presented so many phases in its development and progress, that new laws are being constantly enacted, and old laws are repealed or modified to suit the requirements of the time. The Code has accomplished all that it was designed it should, but at present many of its features are obsolete, and not adapted to our wants."

Reduced to syllogistic form, the position would stand thus: The Code of Ethics is thirty-four years old. During that thirty-four years, there has been such progress in the development of the population, internal improvements, and various industries of the country, that new laws are being enacted, and old ones modified. Therefore, many of the features of the Code of Ethics relating to the medical profession are obsolete. It is about as easy to see a specimen of Koch's bacillus tuberculosis through a pair of common spectacles, as to see the relation between these premises and the conclusion placed as a deduction from them. We had supposed that a code of ethics was an embodiment and application of those moral rules or principles which indicate the duties, and should regulate the conduct, of some class of intelli-

gent beings. A code of ethics for the medical profession should embody the ethical rules or moral principles that indicate the duties of the physician to his patients, to his brother physicians, and to the community in which he lives, with such application of those principles as will afford a just guide for the regulation of his conduct in each of the three relations named.

Now, our National Code of Ethics is simply this, and nothing more. And if it was necessary and right thirty-four years ago, what are the changes that have taken place in the relations between the physician and his patient, or between the physician and his brother practitioner, or between the physician and the community in which he lives, that have rendered "many of its provisions obsolete?"

Has the mere increase in the number constituting the profession, or the extension of the boundaries of medical knowledge, or the increase of general population, altered in any degree the practical duties and relations of the physician, or the rules that should regulate them? The lapse of time may bring such extensions of social, educational, commercial and physical interests, as to require the frequent modification of old laws and the enactment of new ones, but it cannot change the principles of justice and equity between man and man, or the ethical principles that should regulate the conduct of any particular class in human society. And our friend from Missouri, from whom we quoted our text, should know that all the essential principles, and much of the language of our National Code, are taken from the work of Dr. Thomas Percival, an English physician, published in 1803, and which has served as a guide for the English profession nearly a century. And the same will probably continue to be the guide of the great mass of intelligent medical men through the centuries to come. As in the past, so in the future, additional clauses or sections may be added for the purpose of making existing principles cover some new combination of circumstances, but neither the lapse of time, nor the progress of human society, will change the nature of a moral or ethical principle, or render its application in the regulation of human conduct *obsolete*.

BACILLUS TUBERCULOSIS—Each contribution to our knowledge of this organism by microscopists of eminence is welcome. Some time since Spina of Vienna published an account of experiments of his own to test the accuracy of those of Koch. He found that the tubercle bacilli did not as had been asserted, take staining peculiar to themselves and different from other forms of bacteria. Koch in his reply to his critics in turn severely criticized Prof. Spina's experiments. At a recent meeting of the Society of Physicians at Vienna, Professors Stricker and Spina reaffirm the previous observations and describe a new series of experiments carried on by them to test the same point. They also claimed that they had produced tuberculosis in healthy animals by the injection of glass and cinnamon, the possibility of which has been denied, provided due care is taken to prevent contamination. It is

that gentlemen of such scientific eminence as Professors Stricker and Spina would repeat these experiments without taking every precaution to make them trustworthy. Their conclusions, therefore, deserve careful consideration by unbiased thinkers. Professor Feltz, of Nancy, France, has also been repeating Koch's inoculation experiments with cultivated bacilli. He does not consider his experiments decisive and will repeat them, but, thus far, he has failed to produce the disease of which the bacilli were the supposed cause.

ENDOWMENTS —We are glad and at the same time sorry to see that Dr Elphalet Clark, of Deering, Maine, has bequeathed some valuable land as an endowment for a new medical college. We are glad to see endowments made to medical schools. It is only surprising that the many wealthy and generous men in our country who have made endowments to schools and colleges have almost uniformly overlooked medical institutions. The public should be most deeply interested in having medical education in this country as good as is possible, for otherwise it will suffer from the ignorance of the profession. While it is generally admitted that no literary or scientific college can be maintained properly, and its grade of scholarship kept at a proper standard without liberal endowments, still medical colleges have been allowed to shift as best they could. Is it surprising, under these circumstances, that the requirements for admission to, and graduations from, the great majority of American medical schools are so slight? We repeat we are glad to see endowments made to medical colleges, but we are sorry that they are not made to some of those already established, and that have gained reputations for good teaching. It is such schools that deserve these pecuniary rewards.

NOTICE —The mailing of the first number was delayed by causes incident to the arranging and printing of new mailing lists. We have endeavored to supply accurately all the members who have been reported to us by the Treasurer as having paid their annual membership fees, and also all others who had sent us pledges of support. If any find themselves omitted, or their addresses incorrect, they will confer a favor by promptly notifying us. Let it also be remembered that all payments of membership dues should be made to the Treasurer, Dr R J Duglison, P O Box 2386, Philadelphia, Pa. And all subscriptions from non-members or other matters of business, should be sent to the office of publication, 65 Randolph street, Chicago.

EDITORIAL ASSOCIATION —In compliance with the unanimous request of the American Association of Medical Editors, at its recent meeting in Cleveland, we have occupied a large part of the space in the present number with the addresses before that body. They relate to topics of much importance, and we hope their reading will not be devoid of interest and profit. The next number will contain the address

of the Chairman of the Section on Practical Medicine and Materia Medica, and such other papers belonging to that Section as the space will permit.

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER

As predicted in our last letter, Dr Theophilus Parvin was elected to the chair of Obstetrics and Diseases of Women and Children, at the Jefferson Medical College, recently made vacant by the resignation of Dr Ellerslie Wallace. This accomplished physician and distinguished teacher, has been for the past two years professor of obstetrics and diseases of women in the medical department of the University of Louisville, Ky, where he attained a high reputation as a brilliant and instructive lecturer. It is very gratifying to the students, as well as to the alumni of Jefferson College, that Dr Wallace's place has been filled in such an acceptable manner, and the faculty also congratulate themselves on such an agreeable accession to their ranks. Dr Wallace has been elected emeritus professor.

Dr Parvin is also well known as a medical writer, having contributed largely to American medical literature, both as an editor, and author. Philadelphia maintains her prominence as a medical center, not only by the high standing attained by the graduates of her schools, but by the wise selection of competent men to fill vacancies in her ranks of medical teachers, for which purpose the very best that the country can afford are always chosen.

On Friday, June 30, the Muller modification of the Porro operation, in turn a modification of the Cæsarian section, was performed at the Philadelphia almshouse, Dr W H Parrish, of this city, the subject being a dwarf aged forty years. The woman is only fifty-one inches in height, though both parents are of ordinary stature. She has suffered with a curvature of the spine since early childhood, causing a malformation of the pelvis of such a character that delivery in the natural way was impossible. Ether was administered, an incision made through the abdominal wall, the uterus elevated from the abdomen, into which an incision was then made and a living foetus removed. The uterus was then amputated at the cervix. This is said to be the fourth Porro operation in this country, the first successful one, as far as both mother and child is concerned, being performed by Dr Elliot Richardson about three years ago. The woman in that case, also, was a dwarf, and survived the operation two years, recovering entirely from its effects.

We have just received word that the mother operated on at the almshouse Saturday, is dead and the child doing well. Such a result was anticipated, however, as the patient was suffering with chronic Bright's disease of the kidneys at the time of the operation. She died of uræmia, the result of an acute exacerbation of the kidney difficulty. The urine before operation showed numerous hyaline, granular, and epithelial casts, and precipitated one-

third albumen An autopsy revealed union along the entire peritoneal surface of the abdominal incision, no general peritonitis, and a clean peritoneal cavity A full report of the case will be published

But little of importance is progressing in medical circles in the city, owing to the advent of the heated term The schools are all closed, and the streets quite deserted of pedestrians, a general exodus having been made to the various watering places, and summer resorts, to escape the rays of the pitiless sun, which beats down upon the stone pavements and brick houses with relentless energy One of the features of the fall campaign, however, will be the opening of the post-graduate school at the Jefferson Medical College This course has long been needed, and, judging from the wise selection of instructors, and the valuable clinical material on hand, there is reason to prognosticate a successful outlook for this new department in educational work

We also take pleasure in chronicling the visit to our city of Medical Director Gihon of the U S Navy, who recently spent several days in our midst It is also worthy of special note that two of our eminent physicians and scientists have recently received recognition of their high standing and attainments by having conferred upon them the degree of LL D We refer to the distinguished chemist, Prof Robert, F Rogers, of the Jefferson Medical College, and Prof H C Wood, of the Medical Department of the University of Pennsylvania Dr Rogers received his degree from Dickerson College, and Dr Wood was honored by Lafayette

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

At the meeting of the Chicago Medical Society held June 4, 1883, Dr R Tilley presented a patient under his care, who is being treated for deafness, and in whom he recently discovered numerous bacteria, in the secretions removed from a decayed tooth

The fungi were taken from the tooth in presence of the members, and exhibited under the microscope Regarding their origin, the doctor was unable to decide positively whether their presence was the cause or effect of the dental decomposition, but inclined to the former opinion

Dr A Bryan read an interesting paper on the subject of "Stammering," in which several pathological points of paramount interest were brought to notice, upon which the literature is meager The following extracts upon this topic were taken, which may occur in persons of perfect physical integrity, and is the result of mal-habit or mal education of the nerve centers, presiding either immediately or remotely over the organs of articulation

The act of stammering *usually* consists in the attempt of a person to articulate an elementary sound while the vocal organs remain in the position proper for the utterance of the sound which precedes it in the same syllable

A traumatic lesion of the mouth may temporarily

disable a person in certain forms of utterance, if so, these cases are confined usually to a single letter, and often to only a single word The worst stammerers are capable of stammering upon every letter of the alphabet and upon every word in the language, and stammer between words At times momentary vertigo may ensue in the extreme stammerer, and tetanic action of a number of the facial muscles may occur Stammering is more persistent in those of small intellectual caliber, and disappears more readily in persons of high or good intellectual capacity Fear will enhance the difficulties of the stammerer, so too will cold, by decreasing the rapidity of nervous conduction During the hot weather in summer, stammerers are often greatly improved

Buoyancy of spirits affords relief Consciousness of the presence of superior and arrogant persons plunges the common stammerer into difficulty, whereas the presence of a benign superior aids him Vigorous mental excitement usually aids and relieves the stammerer A sense of healthful joy often does away temporarily with all difficulty of utterance Among the *causes* was antecedent disease Children recovering from extreme adynamia in acute disease are liable to stammer afterward And a large proportion of stammerers are made by imitating others who (mimic) a sufferer from the malady

A large number take on their trouble by unconscious imitation A child may imitate its brother, sister, or parent—cases that supervene in this manner are not so inveterate as those that arise through ridicule or through a malicious purpose Children born of stammering parents usually stammer with great facility, but in these it may be of transient duration Stammering is not analogous to aphasia due to cerebral lesion The treatment, carried out intelligently, should usually be successful, for the tendency is to spontaneous recovery Total non interference should be adopted in treating all young children who have acquired the impediment by unconscious imitations The child should be placed in circumstances of absolute freedom of general growth, physically and mentally A warm climate enhances recovery by increasing the velocity of nervous conduction The self confidence of a child should be cultivated He should be removed from all opportunity to imitate another stammerer, and should be taught music, dancing, and calisthenic exercise The intelligent adult stammerer should be drilled in elementary articulation His general culture should be carried to an extreme extent and a high form of will should be carried on the part of a patient

Dr E G R Trimble, a sufferer from this lingual impediment, asked the writer if stammering was apt to be accompanied by neurasthenia, also if, in hereditary cases, the hesitation generally occurred on the vowels or consonants Answered "No," relative to neurasthenia, and secondly that the hesitation most often occurs on the vowel sounds

NEUROLOGICAL ASSOCIATION—At the meeting of the American Neurological Association, Dr J W Morton, of New York, read a paper on "Neuritis following Dislocation at the Shoulder" The peculiar

ity of this case was that the inflammatory action extended along the affected nerves of the right side involving the cord, so that symptoms manifested themselves also in the left arm and hand, but instead of causing atrophy of the tissues supplied by the nerves from the diseased center, as is usual, there was an over-excitability of the neuro-muscular tissues. The case was treated by electricity, a blister over the tract of the brachial plexus, hot and cold douches, and the use of cod-liver oil.

Dr C L Dana, of New York, read a paper on "Hydro-Bromic Acid as a Substitute for the Bromides." He had used it during the last two years in cases of epilepsy, alcoholism, various forms of headache, vertigo, general nervous depression, neurasthenia, chorea, insomnia, hysteria, etc. He had observed the most benefit in cases of post-hemiplegic and lighter nervous troubles. He did not find that it would prevent cinchonism. Its chief advantages over the haloids are that it is more agreeable to take, less irritating, and does not produce bromism. The doses should be larger than that usually employed. Of the officinal or ten per cent solution, one to two drachms and a half, are the doses which he found most serviceable, and of the pure acid from ten to twenty drops.

Dr J J Putnam, of Boston, described eight cases of "Lead Poisoning Simulating other Forms of Disease," such as chronic and subacute myelites, and one case of cerebral disease. He pointed out also certain sources of error in detecting lead in urine.

Dr J T Eskridge described a "Case of General Neuralgia" and Dr C C Mills a "Case of Locomotor Ataxia terminating as General Paralysis of the Insane." The patient had had syphilis, and was addicted to venereal and alcoholic excesses. After death microscopical examination showed that the spinal cord was sclerosed throughout, especially in the lumbar region. There was also diffuse inflammation of the pia mater. Sclerosis had occurred in the pons, the optic thalami and those cerebral convolutions that were examined. After reviewing the literature of the subject, the author stated his belief that in the case described the brain had not been affected by simple extension of disease from the cord, but that various portions of the cerebro-spinal system had been attacked separately.

Dr E C Spitzka, of New York, made some remarks refuting the "Alleged Relations of Speech Disturbance and Patellar Tendon Reflex in Paretic Dementia."

Dr R T Edes, of Boston, described some original experiments upon the "Excretion of the Phosphates and Phosphoric Acid as connected with Mental Labor." He was unable to find evidence to corroborate the strong popular opinion that the excretion of phosphoric acid was increased by mental labor.

Dr S G Webber, of Boston, reported several "Cases of Locomotor Ataxia with unusual symptoms and marked remissions in their course."

Dr R W Amidon, of New York, described a "Case of Tetanoid Paraplegia occurring in a Child," the tetanoid symptoms being preceded by indications of sub-acute hydrocephalus. Dr Amidon suggested

that the central trouble might, by extension to the chord, be the cause of the tetanoid manifestations. He also described two "Anomalous Cases of Parkinson's Disease." They were peculiar in showing all the symptoms of the trouble except the tremor.

Dr V P Gibney, of New York, showed a "Case illustrating Progressive Muscular Atrophy" and also one manifesting "Fibrillar Twitchings Follow a Gunshot Wound."

Dr W J Morton, of New York, read a paper in which he described an "Apparatus for Treating Scrivener's Palsy." This consisted of a light metallic thumb for the index finger, to the end of which was attached the pen. A rubber band was placed around the thumb and finger so as to offer some resistance to extension and abduction. This apparatus kept the muscles on the stretch.

Dr G M Hammond narrated a "Case of Locomotor Ataxia," in which there was apparently cure, and in which even tendon reflex had returned.

Dr F T Miles, of Baltimore, read a paper on "Nutritive Alterations of the Hand from the Pressure of a Dislocated Humerus in the Axilla."

Dr Burt G Wilder, of Ithaca, presented photographs and a specimen of the "Brain of a Cat lacking the Callosum." During life the animal had shown no peculiarities. He also read papers "On the Alleged Homologies of the Carnivorous Fissure Cruciate with the Primate Fissure Centralis," "On the Removal and Preservation of the Human Brain," and "On Some Points in the Anatomy of the Human Brain."

Dr W J Morton, of New York, read a paper entitled "Treatment of Migraine." He pointed out two types of the disease, the one spastic, the other paralytic. In the first form the bromides, especially sodium bromide, was preferred. When given freely it usually aborted the attack. Nitrite of amyl and nitro-glycerine were also frequently beneficial. The paralytic form was usually most benefited by ergot and strychnia. Cauterization and electricity judiciously applied, also did good.

Dr W R Birdsall, of New York, discussed the "Relation of Syphilis to Locomotor Ataxia." From the statistics which he had gathered, he was unable to agree with Erb, that the disease always followed syphilitic disease.

"Galvanization of the Brain and its Value in the Treatment of Chorea," was considered by Dr C L Dana, of New York. Anodal electricity when applied to the brain, he thought acted as a sedative, retarding the circulation. In the cases of which he kept records, it seemed that under treatment by electricity, they recovered much more quickly than when using arsenic alone.

Several other papers were read by title only.

TRIPLETS—On June 18, the Chicago Medical Society held a regular meeting, and Dr Henry Ogden read a valuable paper on Obstetrics. This topic was made more interesting and prolific by a carefully written report on a "Trio of Cases of Triplets," all having occurred in this city recently, within the space of seven weeks. The first case cited was the birth of

three living girls, born to a German family at 96 Fullerton Ave., on the morning of February 11, 1883, during the half hour intervening between 7 30 and 8 o'clock. In ten minutes after the last child was born, a very large placenta came away. The babies weighed $6\frac{1}{2}$ lbs, $5\frac{1}{2}$ lbs, $4\frac{1}{2}$ lbs. Mother's recovery was protracted, but at this date all are well.

The second case occurred in an American family, at 341 W Randolph street. The triplets were boys, two of whom were born alive, on the morning of March 30, 1883, during the half hour from 5 30 to 6 o'clock. At 7 A M, the third boy was still-born, and by appearances, had been dead for several hours. In about 20 minutes, the placenta came away. The following were their weights $5\frac{1}{2}$ lbs, 5 lbs., $4\frac{1}{2}$ lbs. The mother was very well all through her gestation, and is now quite well, and nurses the two surviving babies.

Third case, all girls, born to Swedish parents, residing at 1675 Gehrke Ave., on March 27, 1883. The first child was born at 10 A M, and was below the normal size, the presentation being cephalic. The other two were cross-births on presentation, and turning was promptly resorted to, the last child being born with both arms extending alongside of the head. But five minutes intervals occurred between the births of the children, which were all born alive, their weights being 6 lbs 1 oz, 6 lbs 4 ozs, 6 lbs 9 ozs. The urgency of the case prevented the last child from being born in other than the manner in which it was, as the arms were above the head at the superior strait, and pulsation had ceased in the cord, and a lesson from Deventer, who wrote in 1724, that everything had succeeded well in his practice by this method, "not much as one head having stuck in the mouth of the womb," was called to mind and acted upon. The mother's recovery was tedious, on account of an attack of cellulitis.

A supplementary report was stated, wherein Dr J W Edwards, of Mendota, Illinois, had kindly furnished a case of triplets of three girls, born to Irish parents, on the morning of June 3, 1881, in that city. There were three separate placenta in this case. The children are now two years old, and all well, as also the mother. Since the above paper was read, another case where three children at one birth were born to a German family residing on Emma street, all of whom are doing well, has come to our knowledge.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE—FIFTIETH ANNUAL MEETING, 1883

This volume of 104 pages does credit to the Society, for it is in good type, on excellent paper, and is well arranged, and passably well indexed. Dr A B Iadlock reports an interesting case of femoral hernia, death seventy-four days after the operation. Dr J S Sinclair reports two cases of plastic-surgery—one for the relief of ectropium, by transplantation from the arm, the other for the relief of symblepharon by conjunctival flaps. Dr W D Hazzard reports a case of ovarian tumor of twenty two years' duration. Dr J S Nowlin discusses vaccination and small-pox, and Dr J W Davis reports a case of induced

delivery in a patient who was treated for abscess of the liver, and to whom in the last week of the eighth month of pregnancy he gave for this purpose quinine gr 4, morphine gr $\frac{1}{2}$, dilated the os with very little difficulty, ruptured the membranes, and by frequent stretching of the os with the fingers, labor was brought on in less than two hours, and she was delivered of twins.

REVIEWS

A SYSTEM OF SURGERY BY VARIOUS AUTHORS, edited by T HOLMES and J W HULKE, third edition, in three volumes.

A work so large and exhaustive as this, cannot be properly reviewed in the small space at our disposal.

It is twelve years since the second edition of this work appeared, and the many additions to all the departments of surgery which have occurred since then have necessitated a thorough revision of the whole work and even the rewriting of many portions.

The present volumes are well printed, and very fully and handsomely illustrated. Each volume contains—in addition to many wood-cuts—several full page plates.

The chapters are grouped under five divisions or parts. The first includes General Pathology, and occupies about one third of the first volume, the second part treats of General Local Injuries, and the third of Injuries to Special Regions. These three parts fill the first volume. Part IV discusses the Diseases of the Various Organs, and occupies the whole of the second volume and two thirds of the third. The remainder of the work treats of Operative Surgery. Minor Surgery, Plastic Surgery, Amputations, Excision of Bones and joints, and an appendix on Surgical Diseases of Childhood.

The amount of labor expended in revising the work and bringing it into its present form cannot be shown better, probably, than by giving the names and stating the work of the various revisers. W Anderson, Assistant Surgeon to St Thomas' Hospital, wrote the chapter on Animal Poisons which replaces the same chapter in former editions by Mr Poland. A E Barker, Assistant Surgeon to University College Hospital, replaced the essays of previous editions prepared by Mr Athol Johnstone, Mr Shaw, and Mr Holmes Coote, on Diseases of the Joints, of the Spine and of the Tongue, he also edited Dr Lockhart Clarke's essay on Diseases of the Muscular System. J Birkett, Consulting Surgeon to Guy's Hospital, prepared the articles on Injuries of the Pelvis, Hernia, Diseases of the Breast. J R Bristowe, Physician to St Thomas' Hospital, edited the articles on Diseases of the Skin, which were written by Sir W Jenner, Dr Hillier and Mr Nayler. B L Broadhurst, Surgeon to the Royal Orthopaedic Hospital, wrote the essay treating of Congenital Dislocations and Intra uterine Fractures. C L Brown Sequard, Professor of Medicine at the College of France, that on Injuries of the Nerves. G Brusk, Consulting Surgeon to Seamen's Hospital prepared the articles on Parasites and the Diseases which they produce,

also that on Venomous Insects and Reptiles H I Butlin, Assistant Surgeon to St Bartholomew's Hospital, prepared the essay on Tumors, and re-edited those of Mr Holmes Coote on Abscess and of Sir J Paget on Ulcers W Watson Cheyne, Assistant Surgeon to King's College Hospital, wrote that portion which treats of Artificial Limbs Mr Callender's essay in previous editions on Pyæmia has been replaced by one written by H H Clutton, Assistant Surgeon to St Thomas' Hospital The article on Gangrene formerly prepared by Mr Holmes Coote, for this edition was written by W H Cripps, Assistant Surgeon to St Bartholomew's J Croft, Surgeon to St Thomas' Hospital, re-edited Sir J Paget's essay on Wounds, and wrote those on Hætic Fever, Treatment of Cases after Operation, and Antiseptic Method of Dressing Wounds W B Dalby, Aural Surgeon to St George's Hospital, describes Diseases and Injuries of the Ear, A E Durham, Surgeon to Guy's Hospital, Injuries of the Neck, and G Harley, Apnœa R G Godlee, Assistant Surgeon to University College Hospital, reedited the essays on Surgical Affections of the Skin by Mr F Smith, and Diagnosis and Regional Surgery by Mr Holmes Dr Barclay's essays on Delirium Tremens and Diphtheria and Croup, Mr Durham's on Diseases of the Nose, and Mr Holmes Coote's on Diseases of the Thyroid Body have been re-edited by J Warrington Howard, Surgeon to St George's Hospital F Holmes, the editor, writes the articles on Burns and Scalds, General Pathology of Dislocations, Diseases of the Bones, Aneurism, Excisions, and Surgical Diseases of Childhood He re-edits Mr Simon's essay on Inflammation, Mr De Morgan's on Erysipelas, Mr Savory's on Hysteria, Mr Moore's on Wounds of Vessels, Diseases of the Absorbent System and of Arteries, and Mr Callender's on Diseases of the Veins J W Hulke, Surgeon to the Middlesex Hospital (editor) prepared the essay on Injuries of the Upper Extremity, and edited those on Tetanus, by Mr Poland, Injuries of the Head, by Mr Hewett, and Diseases of the Eye, by Mr Dixon Surgical Diseases of Women is written by J Hutchinson, of London Hospital, Syphilis and Gonorrhœa by H Lee, of St George's Hospital, Anæsthetics and Amputations, by J Lister, of King's College Hospital, Orthopædic Surgery Curvature of Spine, Rickets and Osteotomy, by W J Little, and General Shot Wounds by F Longmore, Professor of Military Surgery at Netley W H A Jacobson prepared the articles on Injuries of the Back and Face, and Diseases of the Male Generative Organs, also re-edited Mr Hornidge's article on General Pathology of Fractures Mr Poland's essay on Injuries of the Chest, and Mr T Smith's on Minor Surgery, are edited by R Lyell, of Middlesex Hospital, he is also the author of the article on Plastic Surgery The essay on Injuries of the Lower Extremities, by Mr Holthaus, has been replaced by one by H Morris, Surgeon to Middlesex Hospital Injuries of the Abdomen, Diseases of the Mouth, Pharynx and Œsophagus, and of the Intestines, are described by G D Pollock, Consulting Surgeon to St George's Hospital S J A Salter writes on Diseases of the Teeth, J Burdon Sanderson, Professor

of Physiology at Oxford, Pathology of Inflammation, H Smith, of King's College Hospital, Diseases of Rectum, Sir H Thompson, of University College Hospital, Diseases of Urinary Organs, Lithotomy and Lithotripsy, in place of those previously by Mr Poland and Mr Hawkins The essay on Scrofula is by E Treves, of London Hospital, and takes the place of one by Mr Savory The articles by Sir J Paget, Surgeon to the Queen, on Pathology of Sinus, and Fistula and Contusions, and that of W S Savory, of Bartholomew's Hospital, on Collapse, remain unchanged in the present edition

SITZUNGSBERICHTE DER PHYSIKALISCH-MEDICINISCHEN GESELLSCHAFT ZU WURZBURG, 1882 — This report of the session for 1882, of the Physico-Medical Society of Wurzburg, is filled with valuable material, contributed by such men as Virchow, Kolliker, Gerhard, Rindfleisch, V Rineker, Riezer, Angerer, Gad, Flesch, Rosenberger and others The first article is a review by Riezer of hypnotism, followed by a description of his illustration of the subject in two girls, and several animals, and also by the ensuing discussion He divides the subject into four heads first, that of the old mesmerism, second, the hypnotism of Burd, with the present views of Heidenham, third, the clinical neuro-pathological views of Charcot, and fourth, the hypnotism of animals, as demonstrated by Czernak, and more fully by Pruger of Jena His demonstrations excited considerable comment

V Bergmann described a case of extirpation of the larynx with the patient before him, using for the purpose of speaking a phonative apparatus, provided with a caoutchouc membrane, which imitated fairly the tones of the human voice The other articles correspond in merit with the illustrious names with which they are associated

NINETEENTH ANNUAL REPORT OF THE ALUMNI ASSOCIATION, ETC, OF THE PHILADELPHIA COLLEGE OF PHARMACY, 1883 — This is a very respectable sized volume of 180 pages of very fine print, no table of contents or index It evidently contains much interesting and instructive matter, but to get at it properly one must read closely

BOOKS AND PERIODICALS RECEIVED

Sanitarian of June 28, 1883

Mississippi Valley Medical Monthly, July, 1883

Treatment of Various Forms of Acne, by G H Rohe, M D (Reprint from *Medical Chronicle*, May, 1883)

Sanitarian of July 5

The *Detroit Lancet*, July, 1883

A System of Surgery by Various authors, edited by Holmes Edition third, in three volumes Published by Wm Wood & Co, New York

Quarterly Journal of Inebriety, July, 1883

Sanitarian of July 12, 1883

Hints on Treatment of Some Parasitic Skin Diseases,
by Geo H Rohe, M D (Reprint from *Medical Record*)

Pemphigus and Diseases Liabie to be Mistaken for It,
by G H Rohe, M D (From *Medical News*)

REPORT OF THE TREASURER OF THE AMERICAN MEDICAL SOCIETY

DR RICHARD J DUNGLISON, TREASURER, IN ACCOUNT WITH THE AMERICAN MEDICAL ASSOCIATION

Dr		CR
1882		
June 15	To cash balance	1141 38
"	Delegates and members at St Paul meeting	3455 00
1883		
June 1	Permanent members to date	1080 30
	1882	
June 15	By cash expenses of Treasurer to St Paul meeting as per order of Association	105 95
July 3	Dr W B Atkinson Permanent Secretary as per order of Association	1000 00
Aug 10	Dr Kleinschmidt, Librarian for binding etc as per order of Association	200 00
Sept 12	Dr N S Davis Chairman Trustees of Journal on account	500 00
Dec 20	Houghton Mifflin & Co stereotypers	400 00
" 31	Postage expressage etc to date	53 81
1883		
Jan 8	Wm F Fell & Co printing	56 85
Feb 16	Dr N S Davis Chairman Trustees of Journal balance	227 50
"	Dr N S Davis, Chairman Committee on meteorology	250 00
March 29	Henry Barnes ser vices as clerk	50 00
April 5	Times Printing House Printing vol 33	1534 54
" 13	Wm F Fell & Co printing	49 80
May 26	F Leyppolt guarantee Index Medicus	20 00
"	Dr Kleinschmidt Librarian expenses	25 00
30	H C Levi Love & Co postage expressage paper etc	59 65
"	T K Collins printing (1881 2)	76 65
"	Dr W B Atkinson Permanent secretary expressage postage travel etc	163 00
June 2	Balance	903 83
		5676 68

MISCELLANEOUS ITEMS

Dr T J Heard, of Galveston, Texas, reports the following case. A boy of ten years of age, of strumous diathesis, cervical glands very much enlarged, lids granular, conjunctiva and cornea ulcerated. Treatment—To take three drops of compound tincture of iodine after meals, the part of the eye involved to be well sprinkled with finely levigated dry subnitrate of bismuth three times a day, eye to be thoroughly washed night and morning with lukewarm water, at bed-time the lids to be anointed with washed lard. In two weeks' time the eyes were perfectly clear and well, and the boy's general condition improved. The reason I report this case is because I have seen no mention made of the use of bismuth in such cases.

MAURICE KRISHABER, M D, died of acute pneumonia at Paris, in 1883. Born at Felacetezhazy in 1836, he took his degree in Paris in 1864. He was known both as a surgeon and laryngologist. One of Claude Bernard's most intimate students, he conducted some extremely interesting physiological researches. In connection with M Baillarger, he prepared the article on Cretinism in the *Dictionnaire Encyclopedique*, which is one of the best works on the subject. His most important work, however, is his memoir on the cerebro cardiac neurosis, generally described as Krishaber's disease, in which he describes one of the most curious forms of functional cerebral ischæmia, and which opens a vast field for pathological investigations. Shortly before his death, he received the Monthzon Prize from the Academy of Sciences for his researches into the inoculability and contagion of tuberculosis in the monkey.—*L'Encephale*.

No award was made of the Fiske fund by its trustees at the late meeting of the Rhode Island Medical Society. They offer \$300 for the best essay on either of the following subjects. First—"The Origin and Progress of the Malarial Fever now prevalent in New England," second, "Original Investigations in Household Hygiene." The essays must be forwarded to Charles W Parsons, M D, Secretary of Trustees, on or before May 1, 1884. Each one must bear a motto in the place of the author's name, and must be accompanied by a sealed packet containing the name and address and bearing the same motto.

Dr H P Strong died at Beloit, Wisconsin, June 20, 1883. He was fifty-one years old. He had been Mayor of the city for several years, Secretary and President of the State Medical Society, during the war he was surgeon of the Eleventh Wisconsin Regiment, and at the time of his death he was a member of the State Board of Health.

The annual meeting of the Delaware State Medical Society was held at Wilmington June 12. The President-elect is Robert M Hargardine, of Tilton, Vice President, Willard Springer, Secretary, George W Marshall, Treasurer, J W Sharp.

Dr John A Liddell, of New York, died there July 8, 1883, aged sixty. He was well known as a writer and as Inspector-General of the Medical Staff of the Army of the Potomac during the Rebellion.

Dr Moritz Michaelis, of New York City, died there on the 23d of June. He was well known as an obstetrician. He was born at Detmold, Germany, in 1811, and came to New York in 1840.

The New York State Medical Register for 1883 contains the names of 2,684 physicians living in the State, of whom 1,661 reside in New York City and 510 in Brooklyn.

DR S STRAUSSER has received a diploma's certificate from the Secretary of the A M A to represent this body in all medical societies abroad.

THE

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ORIGINAL ARTICLES

ADDRESS OF THE CHAIRMAN OF THE SECTION ON PRACTICE OF MEDICINE, MATERIA MEDICA AND PHYSIOLOGY

BY J H HOLLISTER, A M , M D , CHICAGO, ILL

Delivered to the American Medical Association, June 6 1883

GENTLEMEN OF THE ASSOCIATION—

In the development of medical science, men have been compelled to grapple with some of the most intricate and difficult problems which can challenge investigation

In studying those higher relations which lie in part beyond the limits of finite conception, reason may properly defer to faith, and, seeking the guiding hand of revelation, walk with a wisdom other than its own But in medicine it is not so Forces, mental and material, interchangeable, inter-dependent, and inseparable, manifest themselves in ways so manifold, and with so many essential facts undiscovered, that reason is compelled to thread her way with steps slow and uncertain, sometimes, in truth, oft times in error, ever painfully conscious of her weakness, and of the mysteries that confront her on every side Thus only may we account for the seemingly meagre fruitage which represents the labors, for more than two thousand years, of some of the ablest minds the world has ever seen

Those great problems of health, and of disease, of life and of death, which affect the well-being of the race, have been matters of patient investigation by many of the foremost men in every generation And many of them have wrought out work which will endure as long as literature shall survive But the essential causes of diseases have, in the main, been so obscure, and their expressions so varied and complex, that the best of men have been compelled to conclusions largely inferential Accordingly, in tracing the progress of medicine through the centuries, we encounter on the one hand, flights of imagination and fanciful speculations which challenge comparison and provoke our mirth, and on the other, ingenious reasonings and logical conclusions which surprise us by their truthfulness

In the absence of positive knowledge, no man can lay a restraining hand upon the fancies and credulities of men, and medicine has ever been the fruitful field, above all others, for their exuberant development Speculations have been piled mountain high by one generation of workers, to disappear before

another as chaff before a driving wind But despite the winnowings, there still remained some golden grains of truth, and the treasure-house has been slowly but surely enriched by these garnerings of the ages The mile-stones that mark the years of special achievement are set with sparing hands, and the records of successive years so merge and blend with their associates, that each seems but a link in an unfolding endless chain How then shall I presume to stand in the presence of these representative men, and fulfil the duties of this hour by reciting to you the progress of investigations in physiology, in materia medica, and in medicine during the brief period of a single year? And yet I may not wholly shun the task as though it were an idle one, for I am well persuaded of this year that its labors will not be barren of good results

Let me first present some topics in this brief review, which pertain to medicine in general, and quickly come to others, more legitimate matters for this paper

First I think we may congratulate ourselves that the year has been so prolific of trustworthy, accurate, and able workers Probably no year in the world's history has witnessed an equal amount of legitimate original investigation Fewer men are willing to shine with borrowed light No man can longer assume a solar altitude, to illuminate a hemisphere The present army of workers seems rather a galaxy of stars, differing, of course, in magnitude, but each according to his measure, a light unto himself, ready and generous to accept what can be verified, and as quick to criticise and, if need be, reject where the data are insufficient The labors of such men are destined to achieve results which could never be accomplished otherwise, and there is born of such united work a sympathy and an enthusiasm which is becoming world-wide and grand Neither England, Germany, France, nor Switzerland are indifferent when Bizzozero speaks from Italy, nor is the old world regardless of the new

Second The medical journalism of the year claims favorable comparison with any that has gone before An abler literature is given to the press A wiser supervision is clearly manifest New and able contributors are coming to the front All departments of medical investigation are having an abler expression of their work Some curious deformities are growing more and more conspicuous—journals with representative names, with bodies very small and well nigh meatless, are floated aloft on wings of magnificent proportion a wiser most countless folds advertising the men

towns in Prussia To-day he is at the head of the Imperial German Health Bureau in Berlin Probably his name has been spoken and written more often by his professional brethren than that of any other member of the medical profession This prominence is based upon his discovery of what is becoming familiar to us as the *Bacillus Tuberculosis* And whether the discovery shall prove fruitful or barren of result, no one can deny but that it was the legitimate offspring of long continued, painstaking and admirable work By devising new methods of staining, he was at length enabled to find in all tubercular tissue a characteristic *bacillus* It differed essentially from all other bacteria except those of Leprosy, and from these he distinguished it as being somewhat narrower and more pointed at the ends, and by being differently affected by staining He found these bacilli in all localities where tubercular processes were active In size they were from one-fourth to one-half as long as the diameter of the red corpuscle They were sometimes free, sometimes in heaps, and sometimes within the cells—especially were they found within the giant cells of tubercular growths Not only did he find them in tubercular nodules of the lungs, but in tubercular infiltrations of the spleen, liver, kidney, and pia-mater as well

As this subject will be more fully considered in one of the sections during the present session, it is not needful that I should give his investigations farther attention now

One very important question arises in this connection, in fact a pivotal one, upon which all others must turn The presence of specific organisms in many forms of disease even the most skeptical must concede, but the main question is this, are they causative, or only concomitants?

It certainly will not be conclusive to simply assert the presence of characteristic bacilli in the parts diseased, for in such the soil may be nourishing to the one and sterilized for others, affording as many pretty examples of the survival of the fittest

Accordingly, Koch and many others are now giving their attention largely to the matter of germ culture and the reproductions of specific diseases by successive generations of characteristic bacilli

Koch narrates at least one hundred experiments upon guinea pigs, rabbits, and cats, using sterilized ox-blood-serum most successfully as a culture fluid in the germination of bacilli, and he says, that "when a small quantity of this infective fluid was injected into the anterior ocular chamber of guinea pigs, and also into cats and dogs, which do not ordinarily become tubercular, general tuberculosis made its appearance in about ten days, and ran a rapid and fatal course"

Perhaps anthrax stands at the head of the list of diseases that can be propagated by inoculation with specific bacteria This assertion has been confirmed by so many experimenters, as to leave no reasonable doubt, but that this disease is dependent upon the presence of specific organisms, and that after successive generations, by careful culture, have been isolated from other contagium, the introduction of these micro-germs will develop this specific disease

Erysipelas is coming to be classed in the list of parasitic diseases Fehleisen asserts that he has carried the culture of the specific bacillus to the 9th generation, and by the inoculation of rabbits and of one human subject, with the infective fluid, he has developed typical forms of erysipelas

In leprosy the discovery of a distinctive bacillus is asserted by some, and denied by others

The same with reference to gonorrhoea and the micrococci of the vaccine pustule, and those of typhoid fever

In most cases the bacillus has not been so absolutely separated from other possible causes, as to permit the assertion that it is *solely* responsible for specific results At this point we rest the review of present microscopic work

The subject is of utmost interest, and each year's development in this direction, will command the careful attention of every well educated physician

Of course, if we accept the germ-theory of diseases, our thoughts turn at once to their germicidal treatment, and investigators will soon be following in the footsteps of Sternberg, with experiments, to determine the germicidal value of therapeutic agents

The question that concerns us most, is not as to whether we can destroy bacteria, but whether they have not a greater vitality than the tissues of the human body, and whether, in a germicidal warfare, the human organism will not first succumb

In this respect our successes may be similar to those in the celebrated surgical case, in which the tumor was saved but the patient was lost

In materia medica the new remedies proffered to the profession are almost without number, but none seem to me so prominent as to command special attention in the year's report

I am happy to announce to you, that a law has just come into force in Italy, which prohibits the sale of patent medicines throughout the kingdom, unless the precise composition of the medicines is stated This important decree has been promulgated by the Minister of the Interior, the Customs, and the sanitary authorities, with instructions for its rigid enforcement

How long shall enlightened America fall so far behind Italy, in the enactment and enforcement of similar laws?

With a view to the advancement of medical science in America, to the end that its people may command a better service, and that in the advances in the years to come the profession in our country may be more creditably represented, I shall crave your indulgence while I close this paper with the following questions and suggestions

Is the time not nearly at hand when the medical men of the United States, governed by motives which rise above and control all selfish considerations, shall be prepared to institute something like the following action

Let the medical profession in each State, in such manner as seems most satisfactory, designate one of its number, to constitute, with a like appointed member from each of the other States, a Nominating Board

Let it be the duty of this board to nominate a list of men suitable for appointment by the President of the United States as members of a Medical Bureau, to be constituted with specific powers and duties. In this bureau, composed, say, of ten members, let the army, the navy, and the marine service have a proper representation.

Let the members of the bureau be subject to removal only for causes, one of which shall be the attainment of a specified age, and receive a salary, each, of not less than \$10,000 annually, to be paid by those who are applicants for the degree of Doctor of Medicine.

Let the laws of the various States be so modified that the power to confer medical degrees shall vest solely in this body. Let sessions for examinations be held in all the States at such times and places as wisdom may dictate, to the end that all medical students shall have ample facilities for attendance.

Let the standard of requirement be reasonable, but, at the same time, such as shall inspire ambition in the student, and respect at home and abroad.

Let students graduated by the National Medical Bureau receive an honorable distinctive title, say that of National Fellow of Medicine.

In due time let all governmental appointments, as in the army, the navy, and in the marine service, be made from this list. In all contract service and marine and railway service, let such graduates have preference, and in all civic positions let them receive encouragement. Let the State boards of health be empowered, after a specified time, to require that those only who are thus graduated may legally practice medicine in the several States.

The highest interests of our commonwealth are inseparably related with the highest attainment possible in the successful treatment of diseases. Let it be clearly apparent to the legislatures of the several States and to the national government, that the general good could best be served by such procedure, and the necessary laws would be speedily enacted.

To such a movement the colleges could offer none other than a selfish objection, and how long would the will of a few hundreds of professors stand in the way of the expressed convictions of the tens of thousands of physicians?

Let the physicians encourage only those to enter upon the study of medicine whose ability and previous education give reasonable assurance of an honorable graduation. Let them advise the attendance of these students only at such medical colleges as have made this provision for final graduation, and all reputable colleges would soon fall into line.

I see no manner in which a common standard of requirement can be instituted in this vast republic but in some such way. I think I see in such a plan, wisely and impartially executed, the possibilities of a medical culture of the masses of the profession such as the world has not yet seen.

Is it not time that the profession began emphatically to assert its own self respect by calling a halt, and requiring that the indiscriminate grinding of the diploma mills shall cease?

With the medical profession of America such an

advance is possible, and with them is vested the power to correct abuses which are only too apparent.

THE TREATMENT OF YELLOW FEVER

BY ROBERT D. MURRAY

SURGEON U. S. MARINE HOSPITAL SERVICE.

[Read to the Section on Practice of Medicine, etc.]

In presenting this paper, I do not propose to announce any new or certain method for treating a case of yellow fever, or to collate an array of cases that would prove a definite plan to be invariably successful, but I will make some practical remarks on the management of yellow fever, most of which are the gleanings of actual experience in the yellow fever epidemics of 1873, 1875, 1878, and 1882.

I wish to protest in advance against nihilism and theoretical therapeutics, which find favor with some. There is such a process, or art, as treatment of yellow fever, and there is also much maneuvering called treatment, the perpetrators of which should be sent to Labrador or a colder region on the first news of an outbreak, and theorizing in general is of best service in a similar climate. It has been my fortune to witness much bungling and to see experimentation signally fail.

The common sense, nature-aiding methods of years, have been and are successful enough for practical purposes. In battle, soldiers are slightly, severely, or mortally wounded, the latter class die, the former get well, but the others must trust to luck, doctors, and grit—but some of them die from stupid bungling, or accident, or loss of pluck at last, the results being charged to the enemy.

So it is with yellow fever patients. Some are fatally poisoned at the beginning, a majority will ordinarily get well in spite of bad medication, while many die from experiments, nihilism, fright or accident. It is impossible in the onset of an attack to prognosticate the result, as some cases, apparently congestive, will at once respond to palliative measures, and others who apparently promise an ephemeral case, deceptively glide into continued fever or fail in the stomach or kidneys and go on to a fatal result, too often because the preliminary mildness of the attack threw doctor and patient off their guard. Thus treatment and observation are necessary in all cases. That treatment shall be effectual even to the last possible chance, and in no case cause serious consequence in itself, is important.

I do not in this brief paper undertake to give any pathology of yellow fever which shall furnish a clue to rational treatment, but I assume that the condition I see when first visiting a case is a result of aforesaid processes, and that I cannot entirely arrest a process already nearly completed, even if I knew what the process was. Experiments to arrest it will only be loss of time. So I strive to correct the mal-condition and forestall the incidents that are presumably fatal. It is certain that a routine treatment for the most part is preferable to vain seeking after idiosyncracies or peculiar circumstances, but the advisa-

bility of treating the individual patient and not the disease is a truism not to be forgotten

The importance of early medication cannot be over-estimated, and it must be conceded that treatment to be early in a time of hurry and panic should be simple, effectual and well known. To wait a couple of hours for a physician to come, to send to a crowded or short-handed drug store for medicine, to even deliberate on the necessity for medication, are often delays of sufficient time to preclude a favorable result. The first thing to do in the presence of an epidemic is, therefore, to inform the public what to give in all cases of suspicious nature, or actual attack of the disease. Mustard, castor oil, compound cathartic pills, cinchona salts, spirits, and lemons, should be provided by every householder or placed within easy reach of every possible case. Physicians should carry a sufficient supply of remedies for the conditions or complications that may need immediate attention. Writing prescriptions consumes a double portion of valuable time, confuses judgment, increases expense, and at times impels a physician to postpone a modification, or change, when half confident it should be made, for fear of alarming the patient or his friends by another parade of paper, pencil and directions.

WHAT TO DO FOR THE FEVER

A person has frontal headache, pain in back and thighs, flushed face, malaise, and temperature of 38 C or more. Give 1 to 4 compound cathartic pills or 8 c c to 60 c c castor oil according to age, at once. Give hot mustard foot bath, by placing a foot tub on the bed and under the clothes, bathing feet and legs till water is cooled, taking care to keep the body covered. If the thigh pain is not relieved somewhat, add more hot water. When practicable it is better to give a full length hot bath, and to lash the patient in blankets if there is agonizing headache or backache. After two or three hours of profuse sweating rub off with dry towels, change the bed clothing, place a wet cloth on the forehead and await action of the cathartic. If there is no response from it in 4 or 5 hours, give a saline cathartic or an enema. It is permissible to allow the patient to sit on a close stool or vessel during the first or first two actions.

Give hot lemonade, orange-leaf, lemon-grass, or weak Japan tea for first 24 hours. Cold drinks are allowable, but are to be limited as to quantity. Spt eth nit and spt mindereri, or solution of potass chlorat, may be given at regular intervals, not so much for the physiological effect of the drugs, as for the mental peace of the patient, for, as will be mentioned farther on, every possible means must be taken to insure mental tranquility. Insist on quiet and recumbency for at least five days. After 24 hours allow corn starch or hominy gruel, and gradually add milk and broths as occasion demands. This is all that is required in most cases, and additions are inadvisable. If all is well on the 4th day give a tonic of cinchona salt to hasten recovery of strength.

If malaria is mingled with the fever-cause, always give a drachm of cinchona salt within the first twenty-four hours, to all cases. This will modify or forestall delirium and obviate in a measure the danger

of a subsequent rise of fever. In such a case cinchona must always be given on the 6th or 7th day to prevent a chill, which may be congestive and more than usually dangerous. I beg to say that cinchona does not cure yellow fever, but the apt use of it will brace up the nervous system in advance of depressing conditions, and in this manner it not only wards off complications, but hastens recovery. The shortening of convalescence is of prime moment, especially if the patient is a physician, commander of a post, or member of a relief committee. During convalescence the tr ferri chlor, hydrochloric or nitric acids may be administered with the same good effects that characterize their action in other debilitating diseases. But in some cases troubles arise and our hopes of a quiet time are shattered, and we are forced to meet incidents that w - - our patience and skill.

Restlessness is best controlled by potass bromide and chloral. The med sh should be given by the mouth, as long as the stomach w retain it. They are effectual when administered by enem, but cannot be repeated very often, without injury. Sometimes a simple clyster of soap-suds will check it. Bathing the face and neck with cologne or perfumed water, or the whole body with dilute spirits or dilute vinegar are advisable.

If the temperature persists at 39 ° 5 c or more at close of 48 hours, give a clyster, and bathe the body with a lotion of cinchona salt, acid hydrochlor with brandy and water every 2 to 4 hours, or perfumed vinegar or aqua sedative. If there is no nausea, continue the warm drinks and give cinchona guardedly. Nausea is an alarming sign and its approach is usually detected by tenderness of stomach. Never ask a patient if he observes it? The hint may produce the difficulty we fear. Give lime water colored with milk or just diluted, allow small pieces of ice to be taken and eaten, put sinapism or spice pepper-plaster on epigastrium, give charcoal moistened with port or favorite wine, if renewed action of bowels is needed, give a clyster.

Vomiting must be prevented for physical as well as moral reasons. On its occurrence give charcoal, ice, lime-water, etc. Charcoal is a valuable corrector of nausea, and if it fails to prevent vomiting the dread of black vomit is allayed more or less by the fancy that the color is given by the remedy. A blister is advisable in some cases, particularly if the odor of the mustard is objected to, or if there is no sign of blood in the vomit after 36 to 48 hours. Applying a cold towel to the neck or passing a piece of ice over face and throat is oft-times effectual. By all possible means prevent vomiting, the loss of blood is of less moment than the alarm and exhaustion produced by the act. If the stomach is filled with the black vomit the best hope is that the fluid will be carried off by the intestines. Long continued vomiting after danger of black vomit is past is best checked by small doses of calomel, hypodermic injection of morphia, cold to the head, and absolute deprivation of food and drink by the mouth. Hiccough is frequently a troublesome complication. Calomel to induce purgation a clyster of warm water followed by a dose of pot bromide and charcoal, a table-spoonful of lemon juice,

TREATMENT OF YELLOW FEVER

[JULY,

or a few drops of chloroform are to be tried in turn. Restlessness, if not relieved by pot brom and chloral, and by cessation of all irritating surroundings, may be modified by a continued rubbing of limbs and back with smooth towels or the bare hands. Patients who at the onset have been put under the influence of the cinchona salts will not be as restless as those who have not been so treated.

Constipation is out of the question in a fairly begun case. Diarrhoea and colic sometimes give annoyance. If no contra-indication exists, ordinary means may be used to control them.

The urine should be examined at the end of 60 or 72 hours. If it is albuminous, give 2 to 4 c c turpentine in sweet oil, and repeat in three or four hours. Smaller doses may do, but 4 c c will do no harm even to children. If the breathing is labored give spirits guardedly and large doses of digitalis. In case the turpentine cannot be retained, it may be rubbed in, and a poultice of digitalis and hops applied to the hypogastrium. Follow the same plan as to suppression of urine, and see to it that the extremities are kept warm by flannel wrappings or other artificial means. Do not mistake retention for suppression. After the stage of albuminuria or suppression, tr ferr chlor is always indicated. I believe that the giving of it in advance tends to prevent the complications, but I doubt the efficiency of all other diuretics.

COLLAPSE—Put sinapisms or pepper poultices as nearly all over the body as possible. Rub the spine with a sponge dipped in alcohol and capsicum. Give spirits if boine, or by enema. Warm the extremities by hot bottles or bricks. Give rational doses of digitalis.

FOOD—Give practically nothing for three days, the only admissible articles plain salted hominy gruel, alkaline milk, corn starch gruel, Mexican stole and sweet beef essences, condensed milk should be diluted with lime water. Until patient is safe beyond doubt give these with no additions beyond milk or wet toast, soft eggs and soup. Brandy or whiskey are of advantage in some cases, but wines are by all means preferable. Champagne is best of all if a fresh bottle can be opened every time it is given. Port and Catawba wines cover the widest range, but if more acid ones are liked, they are admissible. Keep up observation as to food of a Caucasian patient for at least a week. Many a convalescent has been murdered by undue feeding, while it is hard to conceive of one dying from simple exhaustion.

OBSERVATIONS—Keep the patient covered with one sheet and a blanket to continue skin moisture. Do not change clothing unless absolutely necessary. Flannel shirts are advisable despite the eczema they may cause. Let the chamber be light and ventilated, avoiding draughts. Insist on persistent recumbency for at least five or six days, and upon the use of bed-pans and urinals. The least muscular effort will sometimes turn the scale when the patient might have recovered.

Avoid heart depressants in all forms, there will be no inflammatory complications to guard against, and the heart will soon get weak enough when deprived of all nutrition from healthy blood, and when it is

pumping a sticky, almost tarry fluid, for days at a time. Collapse frequently results from the little extra effort of heart, caused by a bit of startling news, or slight exertion. Avoid opium as long as there is risk of albuminuria. It might be eliminated from the yellow fever supplies with benefit to patients. The rare neuralgia of the liver as a sequel is most effectively relieved by belladonna. Convalescence is hastened and always assured by cinchona and the mineral acids.

Hypodermic medication is useless during the febrile stages, and is always liable to produce abscesses which are difficult to heal.

As the mind of a yellow fever patient is always clear during the period of greatest danger, the managers of the physician have much to do with the recovery and are of great moment, although they would seem to have no relation to treatment. It is necessary to finesse, and deceive almost every patient as to his real condition and prospects, but owing to the acuteness of the reasoning faculties it is not well to be caught in the deceptions. Do not ask unnecessary questions, make judgment without parade, or prolixity, and so as to not arouse suspicions of danger. Do not ask about the stomach in a direct manner, an apparently careless pressure on the epigastrium will tell you more than the patient needs to know. Use a thermometer not oftener than three times a day, and at the same time do not expect to judge of degree of fever by pulse, or skin, or tongue.

In case of physician or experienced person, always report the fever as one or two degrees lower than it really is, and be sure that no thermometer is at hand for the patient's use. A centigrade thermometer is sometimes advantageous if the patient does not know the rule for conversion.

Visiting by acquaintances should be interdicted and only serviceable friends allowed access.

Deaf and dumb nurses would be ideally perfect. Everything, noises, smells, habits, etc., which can disturb the patient, and rumors, gossips, news, or conversation which might excite thought or worry must be prohibited, and in all ways the patient must be led to consider his condition as favorable. Reports of death and sickness and remarks about absent relatives are cruel. If the patient's will is not made, the mention of the fact will insure the need of one. Paradoxical as it may seem, a crowded hospital ward is the best place in which to treat a large majority. The physicians and nurses go about in a methodical, don't care, matter-of-fact way, all emergencies, bad signs are observed soon, necessary attention is given, no news of panic or death comes in. Sickness is the business of all, other patients are worse off, some who appeared to be worse off are convalescing, and patients get well who under a mother's sympathetic hands would die.

In men particularly, (for priapism and inordinate desire are not infrequently accompaniments of convalescence) coition should be prohibited until safety is absolutely assured, and the only way to secure abstinence is to warn the female as well as the patient in plain terms. Not a few cases of fatal collapse are attributable to the exercise of the marital privilege.

before the tenth day of convalescence, and I know of such even after the man had been instructed as to the prostrating effect. Some of these observations may appear frivolous, but the saving of most of the doubtful cases depends so much on observance of all the details of diet and strength-saving, that I have run the risk of being prolix in order to state them. If only a few lives can be saved, the death-rate is made to comport with the possible, and it matters little whether they are saved by drugs administered, or through the common sense instructions of physician and attendants.

Notes

I am almost certain that I saved the life of an esteemed physician by deceiving him as to his temperature. In disgust that so strong a man could not get up a fever higher than 39 C or 39.5 C, (when it was, in fact, at one time 41 C), he concluded that he was not so very sick after all. His three weeks' convalescence with yellowness of eyes and skin and extreme prostration fully evidenced the danger he had been in.

A priest, sick in an upper room, heard some ladies speak of the death (which occurred a moment before) of the commander of the fort, and of the necessity of keeping him ignorant of the fact until his crisis had passed. By a strong assertion of his will he decided not to be alarmed if the news should come to him, and not to ask the usual question about his now dead friend. He recovered, but if he had been startled by the sad news he would have vomited, collapsed and died.

A young man, with physically favorable prospects, conceived that a fellow-boarder was in love with his perhaps fatally ill wife. His inability to protect her by personal attention caused such distress of mind as to continue his fever until the sixth day in spite of all care and effort, and death resulted. His wife was only saved by concealing the fact of her husband's death for twelve days.

I have little fault to find with other plans of management as to medicine, but only give what I have reason to be satisfied with.

Salicylate of soda, carbolate of soda, *et al*, are useless. Pilocarpin has failed to meet my expectations. Large doses of calomel as a purge causes loss of three to six hours valuable time. The "three times three" treatment is useless in early vomiting cases—*i e*, 3 grs each of quinine, calomel and Dover's powder every three hours. As a febrifuge and diaphoretic it is of service. I have seen patients die with "liver pads" on them, and have removed them to put on a sinapism.

"Liver medicines" are of service in preventing the antecedent constipation, and thus tend to lighten attacks, but they do not prevent.

The "fever cot" is dangerous, expensive, requires two or three attendants on every patient, and is not infallible, as I saw the inventor die on one under his own directions.

The Secretary of the Section has furnished the following brief notes of the discussion which followed the reading of the foregoing paper—[EDITOR]

Prof H F Campbell, of Georgia, stated that he

was impressed by the comprehensiveness of detail exhibited by Dr Murray in his treatment of the subject. But basing his remarks upon his own experiences of the disease, said he recommended phlebotomy and the administration of emetics and cathartics, in certain cases, and laid particular stress upon the administration of quinine and liquid food.

Prof Palmer, of Michigan, joined in the discussion, and Dr Elliott, of Pennsylvania, objected strenuously to venesection, but advocated diaphoresis, and advised moderation in the use of therapeutic agents.

Dr A N Bell, of New York, advocated diaphoresis, the use of sulphur and magnesia to produce catharsis, and absolute physical and mental quietude during convalescence.

Dr Franklin, of Ohio, favored depletion by the use of calomel, and a strict diet during convalescence.

Gen Elwell, of Ohio, was invited to a seat in the Section, and favored the audience with his experiences of yellow fever, at Port Royal, in 1862.

Dr J B Hamilton, Surgeon General of U S Marine Hospital service, closed the discussion on Dr Murray's paper, stating that he believed in the contagiousness of yellow fever, in the value and advisability of quarantine, and urged quarantining, disinfection and cleansing as means of prophylaxis against the fever.

MILK SICKNESS

BY WILLIAM MORROW BEACH, M D, LONDON, OHIO

[A Paper read before the Section on Medicine of the American Medical Association at Cleveland Ohio at the Session of June 5th, 6th, 7th, and 8th, 1883.]

I believe milk sickness to be a disease *sui generis*. In Madison county, Ohio, where I was born and raised, I presume nearly one-fourth of the pioneers and early settlers died of this disease, nor is its cause entirely eradicated there, or in many other districts of country where it has ever been known to prevail. Its principal fields have been Western Pennsylvania, Ohio, Kentucky, Tennessee, Illinois, Indiana, and Michigan, and it has probably never been known in New England, west of the great American Desert, nor in any of the countries of the Old World. Its existence as a *specific* disease has generally been discredited by the writers of medical literature in the eastern cities, and I think it is nowhere mentioned in any text book on theory and practice I have ever read.

The disease in the lower animals is called "trembles," and "milk sickness," when it affects the human species. The disease is most common in the late summer and early autumn, but it occasionally occurs in the winter season.

Among domestic animals the trembles usually first affects unweaned calves or lambs or colts. This would be expected, as the poison seeks elimination, or is eliminated in part, through the excretory of the lacteal secretion, and the unweaned are subjected to the double cause—the cause that affects the mother, added to the poisoned milk it nurses.

It next affects the other animals of the herd that are not giving milk, and the milk-giving animals last of all. This holds true with cattle, goats, sheep and horses.

The poison, whatever it is, is *specific*. The milk, the butter, the flesh of an animal suffering with trembles or in the prodromic stage of trembles, or bordering on the prodromic stage, transmit, or are liable to transmit, the disease to other animals that partake of them.

Wild animals are no less and no more exempt than domestic animals. The wolf, the fox, the wild cat, the wild hog and the turkey-buzzard that partook of the dead body of a deer that had died of the trembles, in the pioneer days of the infected districts, were as liable to contract the disease as the dog, the cat, the hog, the turkey-buzzard, or the fox that eat of the dead body of the calf or other domestic animal of a later day.

ETIOLOGY

1st Many of the pioneers, as well as many well-informed laymen and physicians of the present time, attribute the cause to the ingestion of some vegetable by herbivorous animals. These advocates are, and have been about equally divided between the *eupatorium ageratoides* and the *rhus toxicodendron* as the vegetable that contains the specific poison.

2d Others have claimed, and still claim, that it is contracted by the herbivora drinking from certain sources of water supply contaminated with the specific poison.

3d Others have claimed that its origin is malarial—marsh miasmatic.

4th That it is of a gaseous or mineral origin, and may be breathed, drank with the water, or ingested as it settles on and adheres to vegetation.

5th That it is produced by spores, bacteria, or some microscopical fungi or disease germ.

In the consideration of its etiology a few well established facts should be borne in mind.

1st The trembles are seldom met with in a wet season.

2d In exceptionally dry seasons it may be confidently expected—in localities where the cause is known to exist—if domestic animals are not cared for by the thoughtful owner.

3d In fields where the flora may be supposed to be identical, it may be contracted in one field and not in the other.

4th It is unknown on open prairies or in cultivated fields that have been well opened to the sun and have become "tame," although the fields may not ever have been plowed.

5th It is so safe, that in the experience of my life-time I have known of no departure from the rule—that domestic animals may roam with impunity through the infected districts anywhere, through the day time, providing they are brought to the inclosure or corral before nightfall, and kept there until the fogs and dews have dispersed on the following morning. All the pioneers with whom I have ever conversed hold to this theory, and it fully accords with my own observations.

6th Wild and unimproved lands, densely timbered, seem to be the favorite haunts of the poison,

nor does the quality of the soil or the character of the soil seem to influence the danger or prevalence of the trembles in herbivorous animals that are exposed at night. The rule holds good in the low lands of Ohio, Indiana, the groves of Illinois, or the high and rugged lands of Kentucky and Tennessee, so far as my sources of information have reached. I have long held the conclusion that the theory of vegetable ingesta alone is not based on satisfactory grounds. Within a few miles of where I live I have known inclosed lands, both in Madison and Clark counties, where trembles will develop during any summer of protracted dry weather, when they would not develop of an ordinarily wet summer, while the flora would be supposed to remain the same from year to year. One claim, however, renders this conclusion less conclusive, and that is that in very dry summers the grass crop becomes so much exhausted that the herbivora are driven to eat of such plants as they might otherwise reject.

But on my own farm, near London, Madison county, Ohio,—composed mostly of level, black, alluvial soil—within the last fifteen years I have cleared up and improved from its natural state about seven hundred acres, over much of which the *rhus toxicodendron* and the *eupatorium ageratoides* were abundant, and yet no case of trembles has ever occurred there to the best of my knowledge and belief. And the leaves and the tender twigs of the *rhus toxicodendron* are relished and kept closely trimmed by horses, cattle and sheep.

As to the third, or *marsh miasmatic* theory, I think the cause cannot be identical, as the trembles and milk sickness have never been known, it is supposable, in other countries, or in many sections of our own country, where different forms of malarial disease have always been known to prevail abundantly.

As to the fourth, or *deleterious water supply* theory, I think there is something in it. In very dry seasons, the water supply runs low, and the source of supply, in general, probably becomes stagnant and impure.

Within three miles of where I live, I know of three tracts of woodland, of forty or fifty acres each, which remain uncultivated, as they are retained in that condition to keep up the timber supply for the farms. These woodlands are pastured off until about the month of June each year, and again utilized in winter for feed lots for hogs, cattle, etc., with almost certain safety to the stock, but were the stock left there over into the months of July, August or September, in a dry season, trembles would almost certainly appear, as the experiment has not failed, in a dry summer, within the past seventy years. Some seasons, the venturesome owners keep thinking that they will use them for just a few days longer in the summer, when the appearance of turkey buzzards hovering over the woods in large numbers, suggests to them that the food these scavengers covet lies below them, dead of the trembles.

These three pieces of woodland are a mixture of low alluvial and dry elevations, or ridges, timbered mostly with white oak. To rid them of their danger, it would only be necessary to cut off the timber, and let the sunlight in upon the bare unshaded ground.

In one of these pieces of woodland, the water supply is from a spring, which for many years was the water supply for a household of poor non-paying squatters, and in the twenty-eight years that I have attended professionally all families who have lived there, no case of milk sickness has ever occurred, nor more than the usual amount of remittents or intermittents, but no one ever lived there that owned a cow, or were more exposed by reason of milk, butter, cheese or diseased meats, than their neighbors who lived on cultivated farms

I accept the theory as to the cause of trembles, that it has its origin in disease germs or spores, bacteria, microscopic fungi, etc., but whatever its cause, I think it is evident that it is

- 1 *Specific*
- 2 *Infectious*
- 3 *Incubative*

PREDISPOSING CAUSES

Perhaps the most general predisposing cause is fatigue. I should think that half of the cases of milk sickness I have ever seen in women have followed immediately upon a washing-day, or a day of hard work in cooking or entertaining company, and I recall the case of one man who came up out of a well he was digging, and went directly to bed, where he died ten days later

Among the livestock dealers in milk-sick districts—it has been the custom, since my recollection, to make one of the stipulations in a cattle trade to have the privilege of running the cattle for five, ten or fifteen minutes, as a test for their safety from trembles. If they had trembles, or were bordering on the disease, more or less of them would be likely to show it unmistakably, whilst running, or within a very few hours thereafter

PERIOD OF INCUBATION

This, I think, must be somewhat uncertain. I recall the case of a young girl who was a servant in the family of one Dr. A. W. Field, at Amity, Madison Co., Ohio, about thirty years ago. Her father's family, five miles distant, in the country, contracted milk-sickness, and she went to visit them on Sunday, before the true nature of the sickness had been pronounced. She stayed to dinner, and ate some butter on her bread, but no cheese, milk, or meats of any kind, and returned to the village in the afternoon. On Tuesday, the second day following, she came down with milk-sickness, but had a slow recovery, while all the balance of her father's family died.

In 1867, in the month of August, I was called to see the case of the well digger before alluded to. He was a furmer, living in Pleasant township, Clark county, Ohio, and was digging a well for the use of his family, at his own house. I suspected milk-sickness. He acknowledged that his cows had "stayed out" two successive nights, about a week before, in the Baily Woods, a heavily timbered, unimproved body of land of several hundred acres, adjoining his little farm, and belonging to some minor heirs in Virginia. They declared their cows and calves were healthy, but I went into the barn lot and commenced chasing the calves, and in less than five minutes one

of them developed into an unmistakable case trembles

The products of the dairy were used no more any member of the family, but the wife, who was *enciente*, was taken two days after, and within a week I had five cases in the family, all of whom had a slow recovery excepting the husband, who was somewhat intemperate—and that class of cases generally die

In August, 1869, I was called to see S. M., on the National road, near the line between the counties Clark and Madison, in Ohio, and within about thirty miles of the Baily Woods, before mentioned. Malarial remittents were then prevalent, and I failed to get a clear history of his case, as he was deaf and dumb, and his wife a poor interpreter. I concluded to prescribe quinine, which I had administered whisky, to reconcile him to the bitter taste of the drug. On the following day I repeated the same, but on the third daily visit I found his wife sick, and I suspected milk sickness. I ascertained that their cow had "stayed out" one night about a week before, and had probably stayed over night in the Baily Woods, as aforesaid. I went to the pasture and chased the cow around, but without developing any trembles, but the next day I found the woman with a well-marked case of milk-sickness, and the calf dead of trembles

The husband made a good recovery, from a very mild case of milk sickness, in which there was no vomiting, no retching, but simply the symptoms of the initial stage before vomiting supervenes. When the wife died on the twelfth day of her illness, and an only child, a boy, twelve years of age, escaped entirely

In the winter of 1874-75, I was called in consultation at night, with Dr. James B. Sprague, to see some cases in Brighton, Clark Co., Ohio

I found the husband, aged about forty-five, a cooper by trade, in *articulo mortis*. I found his wife about forty, in but a little better condition, and she died about twelve hours later

Now the question in these cases was, where did the disease come from? A beef had been sold by retail through the town the previous week, and suspicion pointed to that as the cause, and the development of four additional cases in another family about ten days later,—all of whom had partaken of the suspected beef, seemed to strengthen the suspicion, although other families who bought of the beef escaped

And then another question arises, where and who had the beef contracted the disease? That cattle may have trembles in the winter season, is a matter of occasional observation, and the old citizens generally attribute it to the feeding of cattle upon wild swamp hay. And that suspected animal it was ascertained, had been feeding from hay cut in a boggy meadow, over which about one hundred acres of the drainage of the aforesaid Baily Woods spread itself, as it sought the sluggish ditch running across the meadow

The disease germ in the animal may have been incubating since the summer season, but it would be quite as probable that it was attached to the grass and survived until the proper nidus was found in the

ingesta of the animal's stomach, when it started to activity and possible multiplication, like a germinating speck of yeast plant

SYMPTOMATOLOGY

In the lower animals the disease is called "trembles," from the agitated condition of the muscles in the animal affected

The first symptom of the disease that is generally noticed, is that the animal is indisposed to exercise. It stands apart from the herd, drooping, languid, with a look of extreme fatigue, and persistently abstains from food

The second stage is that of trembling, extreme thirst and obstinate constipation. The animal at length can no longer stand, and when it lays down seldom rises again. The decubitus becomes at full length, and the animal becomes a stranger to any manifestations of fear, affection or anxiety. The respirations are slow, the extremities and surface cool, and the eye at length fixed, glazed, and the winking ceases altogether. Death generally follows—occurring, ordinarily, from the eighth to the tenth day.

In milk sickness the patient is apathetic, complains of malaise, weakness, indisposition for exercise, loss of appetite or loathing of food, and sometimes of slight nausea. This condition may run on for several days, gradually becoming more pronounced, when vomiting supervenes, and the patient finally takes to his bed. There are no chills, no rigors, but usually an unsatisfied thirst. The tongue is large, flabby, tremulous, moist, and heavily loaded with a dirty white coating. The temperature of the surface sinks below that of normal. The skin is dry, and sensible respiration suspended. The abdomen is retracted and flabby, and comparatively empty. Peristaltic motion seems absolutely suspended, and from that cause, probably, and the general suspension of alimentary secretions, the bowels become, from the first, obstinately and persistently constipated.

The breath becomes offensive, with an odor that some people claim is peculiar to milk-sickness alone. I am led to believe that this may be so, but my observations do not fully confirm me in the belief. The urine becomes diminished, sometimes to eight or ten ounces a day, and generally clear and limpid. The pulse is variable as to frequency, but is always weak and easily compressible, with labored action of the heart and pulsating aorta. The temperature rises in some cases to 99°, but is usually below normal.

There is a marked degree of habitude and indifference, and even in cases where the patient expresses no hope of recovery, the ordinary solicitude for the future of the family and friends is rarely alluded to.

There is an intolerance of covering for the body, especially of the extremities, and I recall one case in which the patient would give no rest to the nurses only as they kept his hands immersed in a basin of cold water, and the ordinary efforts resorted to for warming up the extremities usually are attended with an aggravation of the vomiting or retching.

As the disease advances, the exhaustion becomes so extreme that vomiting is superseded by a feeble retching effort, that to be heard once is to be remembered always.

The patient seems to become more and more somnolent, but there is seldom oblivious sleep, and if there ever is, at all, it is of short and fitful duration.

The vomiting first, and the retching in the later stages, continues to the very close of life, or until coma and oblivion shut it off.

In the later stage the fluid ejections from the stomach are tinged like the indigo-blueing water used in laundries.

These symptoms increase as the disease advances, the habitude assumes a semi-comatose condition, the respirations decrease in frequency, and are variable—sometimes profound and sometimes scarcely perceptible—like the respirations of a hibernating animal. The prostration sometimes becomes profound, the process of winking suspended, and the conjunctiva and cornea become dry and glazed. The habitude increases to somnolency, and the somnolency to a coma. There is stasis of the capillaries, and the vital forces, yielding one by one, the patient dies without a struggle and almost without a sign. Some cases are mild, like the one of the deaf and dumb man I have alluded to, and in bad cases, when recoveries take place, the convalescence is by slow and almost imperceptible stages. I think I never met with but one case in which there seemed to be a crisis, characterized by a sudden restoration of the functions. This was in the case of a child—a girl about twelve years old, in the family of the well-digger before alluded to. On about the tenth day of her sickness I gave up all hope of her recovery. For two days her coma had been continuous, the process of winking suspended for forty-eight hours, and all signs of vitality nearly suspended. Altogether unexpectedly to me she had a dejection, deep green in color, of about one quart, of the consistency of soft soap. Twelve hours later the respirations had increased by at least five in the minute, and she had been noticed to open and shut her eyelids four or five times. She gradually recovered.

PATHOLOGY

The consumption of tissue in this disease is limited, and not like the consumption of tissue in continued fevers. There has been no tenderness over the epigastrium, or the bowels, and the post-mortem shows no characteristic symptoms of inflammation in any part of the alimentary canal. The stomach is found empty and the contents of the intestines consist principally of lumps of a dark-colored, dry, tenacious feculent matter—much the same in appearance as the evacuations, whenever they occur in these cases in the course of the disease. I think there are no special characteristic pathological symptoms by post-mortem unless it be the above named appearances of the contents of the intestines.

TREATMENT

This, to a very great extent, has probably been empirical. The aborigines in Central Ohio, and possibly elsewhere, are said to have placed some reliance on the use of pulverized charcoal, suspended in milk. I used this not infrequently in the early days of my practice, and sometimes have thought that its persistent use did have an influence in allaying the nausea.

Effervescent mixtures—carbonic-acid water or soluble citrate of magnesia, or lime water, however, have seemed to give me more satisfactory results, if I have ever had any satisfactory results from anything. Frequently repeated teaspoonful doses of pure olive oil was a favorite remedy in domestic practice, and I have used olive oil in four-ounce doses, repeated about four times a day, per rectum, but with no appreciable results. Emetics were sometimes used by the botanic physicians, and drastic cathartics—calomel, jalap, etc.—by the regulars, in an early day, but probably only with the results of hurrying some off who might possibly otherwise have recovered. Mercury was not infrequently tried, as in mechanical obstruction of the bowels, but I never saw a case so treated which recovered, nor ever saw a globule of mercury that had been passed *per anum*.

I recall the cases of the first family into which I was called, professionally, in the capacity of a medical adviser, in cases of milk-sickness, in the autumn of 1853. The family were residents of Darby township, Madison county, Ohio, on the banks of Little Darby—a sluggish stream of two or three rods in width. One child was already a corpse, and the father died on the following day. There was another one of the family sick for four or five days, and I recommended the attending physician to give whisky and quinine—a remedy recommended probably for the first time in that settlement. I cannot say if my recommendation was carried out, but the patient recovered.

The next family was in the autumn of 1855, in Monroe township, Madison county, Ohio. One of the cases, a young lady of eighteen, was in the fully developed stages of the disease, and died on the fifth day. Four others of the family—the mother who was *eniente*, in the sixth month, and three children, were simply in the prodromic stage,—with lassitude, habitude, and slight nausea. There was constipation in the household when the disease was pronounced, and in the prodromic cases I advised stimulating doses of spiritus frumenti, every 4 hours, in the shape of punch, egg-nog, stews, with sugar, or with sugar or peppermint, or straight, as was most desirable to the patient, coupled with fresh slippery elm bark mucilage, as a drink, and avoidance of all unnecessary exercise, and none of these four cases advanced to the stage of persistent vomiting, and all recovered within a week or ten days.

Within the last twenty years I have avoided the administration of active cathartics,—as there is suspended peristalsis during the pronounced stages of the disease,—and have confined myself generally to mucilage of fresh slippery elm as a drink, occasional small effervescing draughts, when agreeable to the patient, and alcoholic stimulants either *per os* or per rectum, in all cases, with better general results than when I vacillated too much from this course, in the earlier days of my practice.

In “trembles” the domestic remedy that was of the most general adoption, was feeding the animal with green corn, freshly cut from the field. If the animal would eat enough to act as a cathartic, it would generally get well.

When I am called upon to prescribe I recommend four ounces of whisky to one quart of water, repeated every four hours. Deaths from trembles seldom occur when this is commenced early in the case and followed up long enough, or until convalescence begins.

MECHANICAL REMEDIES IN THE TREATMENT OF SKIN DISEASES

BY JOHN V. SHOEMAKER, A. M., M. D., PHYSICIAN TO THE PHILADELPHIA HOSPITAL FOR SKIN DISEASES

[Read to the Section on Practice of Medicine, Materia Medica, etc. June 1883.]

GENTLEMEN: I do not propose to read my paper *in extenso* before the Section this afternoon, but while giving its salient points, I shall reserve for publication, in case of acceptance, its entirety.

There are a number of remedies which can be used in the treatment of skin diseases which cannot be classed as drugs, but being mechanical in their application may be appropriately termed mechanical remedies.

They are massage, compression, blood-letting, incision, excision, enucleation, scooping, scraping, setons, and cauterization, remedial measures which have been in vogue almost from time immemorial, but which have been more or less lost sight of, and seldom, if ever, used by therapeutists in the treatment of cutaneous diseases.

These are all valuable agents, as I can attest from a long personal experience with them, and I now will proceed to relate what can be accomplished with these mechanical appliances in skin diseases. I will begin with massage,—the first mechanical agent which I shall consider. Although long and favorably known as a general remedy it has, however, attracted little if any attention as a means of treating skin diseases. Its use upon certain morbid conditions of the integument, when properly applied, is often followed with marked beneficial change and at times with complete restoration of the part to its natural state. Massage not only acts in this way locally, but by its indirect effect when used generally, will add tone and vigor to the entire system. This direct as well as indirect action of this powerful mechanical remedy can thus be put into execution both for its local and constitutional effect in many skin affections. Massage, if employed in its original sense, would simply imply kneading; it has now a wider and more general use, and includes as well a group of procedures known as friction, pinching, manipulation, rolling, and percussion of the different external parts of the body. It can be done with the hand or with the additional aid of some fatty substance, a coarse towel, a hair mitten or a brush. It may be performed also by means of ingenious machines that are now perfected and arranged for doing, what the most skillful manipulator can do with his hands. It is better, should the hands be used, that the operator should be strong, muscular if possible, possessed of activity and energy, cheerful and intelligent, with some knowledge of anatomy and physiology. If he has not these latter requirements

he should, at least, possess a thorough preparatory training of manipulation. In addition the hands of the operator should neither be too small nor too large, neither long, bony, doughy, or clammy, but should be both firm, soft, and elastic. Now that I have defined massage and how it is used, I shall next speak of its special forms, their mode of application and their effects. The first and perhaps the most common form of massage used in the treatment of skin diseases is friction. Friction can be employed upon the integument either by patients themselves or by a manipulator with the hands and with the aid of some fatty material, liniment, brush, or a coarse towel, or mitten, according to the special indication in each case.

It might also be well to make circular at the same time with the straight line friction. In thus employing friction the whole palmar surface can be used, both hands moving at the same time, according to the method of Graham the one ascending as the other descends, at the rate of one hundred and twenty-five to two hundred and fifty strokes each minute, or two hundred and fifty to five hundred with both hands. The strokes will necessarily be less rapid on the back and back of the thigh, by reason of the skin being thicker and coarser, the muscles more prominent, and the part to which it is applied longer.

Friction can and is usually made in all directions over a surface without regard to any rule, but it is much better and more efficacious to make it either vertical or circular. For example, in manipulating in this way a limb, the upward or vertical stroke from the extremity to the trunk, followed by the same downward movement, will always favor and not retard the circulation, thus giving a soothing and beneficial influence to the part.

The upward stroke should be strong and vigorous, while the returning one should be light and passive, the palm of the hand, however still remaining in contact with the surface. The effect of frictional massage is to stimulate the lymphatic vessels and veins to augmented action, and thus promote the absorption of inflammatory products, should any exist, as well as adding tone and vigor to the general system. The vessels in course of disease are not only compressed by inflammatory deposits in the tissue, but are also often filled up with plasma and other material, causing stagnation and a loss of their absorbing power. The object to be attained by using frictional massage in such conditions is to empty by this mechanical procedure the over-distended lymphatics and veins, thus increasing their activity, re-establishing their absorbing power, which will enable them to carry off all deposits and restore the tissues to their normal state. Frictional massage can very often have combined with it such movements as pinching, kneading, manipulation, rolling and percussion. This group of procedures can be advantageously blended at times with friction, more especially when the exudation is very great, the innervation of the skin marked, and the object is for a more decided action upon the superficial and deep parts.

¹Massage—Its Mode of Application and Effects by Dr Douglass Graham (*Popular Science Monthly* October 1882 p 725)

According, therefore, to the requirements of each individual case, one or more of these movements can be combined, used alternately or varied.

Thus friction and manipulation can be employed in turn, modified with rapid pinching of the superficial and deep structures, kneading, handling or picking up and rolling the muscles, followed with quick but gentle or vigorous percussion with the palm or sides of the hand, or the ends of the fingers. The action of these combined and varied movements are decidedly more effective both as regards their direct and indirect effects. The lymphatics and veins are emptied, as has already been stated, of their effete products, which cannot return as such, on account of the valvular folds within the vessels. The vaso-dilators are also influenced through the stimulation to the muscular nerves by which the calibre of the vessels are greatly enlarged, thus increasing both the space and speed of the circulation.

Massage employed in this manner not only has this local beneficial influence, but by its alternate contraction and relaxation of the muscles and vessels becomes a powerful aid to the general circulation, furthers nutrition, and is the very best substitute for active exercise.

This general effect of massage Nordhoff shows in his book on Northern California, Oregon, and the Sandwich Islands. In the latter, in particular, he describes how it was employed in place of exercise, being a most valuable device with the natives for aiding digestion, relieving weariness from over-exertion, and both neuralgia and muscular pains. Its beneficial effect in its general action upon the system has also already been clearly demonstrated by Dr S. Weir Mitchell in his well-known Rest Cure, as well as by Prof. Charcot, of Paris.

Dr Zabłudowski, in a paper read in April (1883), at the Twelfth Congress of the German Surgical Society, held in Berlin, also describes in a clear and vivid manner the physiology of massage. This eminent author based his conclusions of the action of massage upon a number of experiments upon men in different physical condition, as well as upon rabbits and frogs. His investigations "have led him to believe that nearly all the bodily and mental functions could be influenced by the various kinds of massage. The weight of the body is reduced in corpulent and thin persons, but is increased in those of medium build. Capacity for work and bodily strength is increased. The mental processes become more active, and sleep is rendered more sound and regular. The frequency of the pulse is lowered, motility is favored, and sensibility is blunted. These effects would serve to explain the value of the method in affections of rheumatic and neuralgic nature.

Now that I have thus briefly described massage, with its special forms and their modes of application, I wish, in conclusion, to refer to its effectiveness in certain skin diseases. In the dry form of seborrhœa, particularly of the scalp, and in thinning and loss of hair, frictional massage, used with moderation, stimulates and augments the sluggish circulation, furthers absorption, and imparts tone and vigor to the scalp and hair. In indurated acne and in glandular swell-

ings it arouses the activity of the sluggish and choked-up absorbent vessels, and thus relieves the glandular congestion, and the skin again becomes normal in being soft, supple, and elastic, and free from these lesions. It not only has a local beneficial influence upon the class of affections just named, but likewise often removes, or assists in removing, when used over the trunk, many gastric and intestinal disorders which very often keep up the cutaneous irritation. This general effect of frictional massage I have witnessed again and again in relieving and curing constipation and other functional derangements, which are very often active factors in keeping up acne, rosacea, hyperidrosis, seborrhoea, urticaria and eczema.

It is often efficacious in removing scarf, and in cases in which the pigment of the skin is either in excess or deficient in quantity, stimulating to renewed activity the absorbents, and assisting in again restoring the parts to their natural state. Massage, whether made with one or more of the group of movements named, is an invaluable agent in certain neuroses, especially in neuralgia, perverted sensibility, and trophic disturbances of the skin. It exerts in these affections a delightful and pleasing local effect, relieves pain by its sedative and counter-irritant effect, increases the circulation of the blood in the integument, thus lessening its activity in the internal organs, and likewise has as a result a decided tonic action upon the nervous system. Massage as a general remedy is an important and valuable adjuvant in promoting and increasing oxidation in cases of scrofuloderma and in psoriasis. It makes the skin more active, removes effete products from within as well as without, and increases the red corpuscles of the blood. It is not only a good, but even a most useful remedy both, for its general and local effect, in many of the forms of subacute and chronic eczema.

Massage thus applied in some of the subacute forms of eczema, in which the surface is dry, slightly thickened, and covered with groups of papules, will awaken the action of the dormant absorbents, increase the circulation, arrest the intense itching, and very often alone restores the skin to its natural state. It is, perhaps, in the next variety of eczema, in some of its chronic forms, that massage has been, in my experience, more efficacious and more of a curative agent than in any other of the affections of the skin.

In such cases, where the surface of the skin presents marked infiltration, is hard, dry, rough, thickened, even to a leathery state, and upon which all medication has been used in vain, it will often be found to yield under this appropriate form of treatment.

Massage not only breaks up the exudation, but likewise stimulates the absorbents, and so assists in removing the inflammatory products from the tissues, and restores the skin to its natural soft and elastic condition. In chronic eczema, especially where the parts become covered with confluent patches of papules, and on which there is more or less infiltration, dry, and attended with persistent and obstinate itching, the judicious use of massage will often not only remove the abnormal and pent-up effete pro-

ducts, but will also produce a sedative action on the irritation and give the sufferer a blissful state of repose, followed with sleep, which formerly had been constantly interrupted by the itching.

Before concluding this important mechanical remedy, I wish again to call attention to the fact that massage is valuable in certain skin diseases both for its local and general effect. When it is employed purely as a local agent it is especially advantageous upon certain chronic changes of the skin. It should, however, never be used directly upon an acute inflammatory surface, but can be applied in the early stages of such conditions with benefit above and below the parts in order to afford more area for the returning circulation. It is also well in using massage to follow certain rules and regulations. These requirements I have already partially alluded to in passing, especially the qualities which the manipulator should possess, such as strength, intelligence, and hands adapted to this purpose. Physicians should, therefore, in all cases, at least in the beginning of the employment of the massage, see that the manipulator has these acquirements. The physician should next see that the proper rules and regulations that are necessary in using massage are carried out, by carefully observing its application. He should also note, first, that the part to be treated should be properly exposed, and at perfect ease for the manipulation, secondly, that the hair, should any cover the surface, be well shaved before beginning the operation, otherwise it will interfere more or less with the movements, and often cause considerable irritation, thirdly, that the manipulator should work from the wrists, in which their energy should be spent on the muscles, of the hands and forearms, and not upon those of the upper part of the arms and shoulders. Manipulation performed by this latter procedure will be awkward, unskillful, will quickly tire out the manipulator, and give an unpleasant sensation and motion to the patient.

Fourthly, the movements should be begun moderately and gently, and carefully graduated and increased with both force and frequency according to the exigency of each case and the ability of the patient to bear the manipulation.

Fifthly, the manipulator should exercise great care in stretching the tissues beyond their normal elasticity, which, of course, will vary in each individual, and will vary also according to the extent and length of disease. He should avoid, in particular, stretching the delicate and sensitive integument in opposite directions, more especially in the flexors of the joints, which often tears the skin by this error.

Lastly, the dose of massage should, of course, vary according to the extent of surface treated, and the skill and experience of the manipulator.

COMPRESSION—Compression is another very useful mechanical remedy which should receive more attention from practitioners in the local treatment of skin diseases than is given to it at the present time. It can be applied by means of any substance which will afford rest and support to the affected structures. The means usually employed are muslin, linen, cotton, silk and gum, used either alone and bound upon the parts, or arranged in the form of bandages, plasters,

or the several materials combined together and woven to the shape of the part to which it is to be applied. The use, in the first place, of the ordinary muslin lightly bound over the surface of many eruptive affections, will not only give rest and support to the parts, but will also exclude them from the air, which often tends to keep up the active irritation. It will likewise retain the application, should any be made, in opposition to the surface, as well as preventing friction and irritation from the clothing, assist in arresting a discharge, should one exist, assist in limiting the disease, and keep at the same time the parts clean. The neglect of this procedure, which is at present too often the case, will keep up the active stimulation, allow the application to run off on the surrounding parts, permit the friction and irritation of the clothing, causing the discharge, should one be present, to increase, the disease to spread, and the parts to become often uncleanly and offensive.

The application of compression with muslin in this simple form, wound or bound around the neck, the axillary region, or the chest, in many of the eruptive affections that involve these regions, is both effective and important additional means in assisting the action of the local medication.

Compression can be applied in the same manner to the breasts should any of the eruptive diseases develop, especially erythema or eczema, and arrest in itself, or assist with medication, in rapidly overcoming the morbid action that would drag on slowly, or often resist the curative action of drugs alone. Again, I know

of no one remedy which is so valuable to apply in eczema which involves the folds of the nates and genital regions and the abdomen, particularly in those having considerable adipose tissue to these parts. The use of strips of muslin, or a large abdominal support of muslin, silk, or a combination of the fabrics, made in the form of an apron, lacing either at the sides or posteriorly, will relieve the congestion, arrest the effusion, serve to keep the application on the surface, protect the parts, and prevent friction with the adjoining portions of the integument, and thus limit the disease. Further, the use of compression in this same form in the treatment of obstinate eczema of the scrotum is the best evidence of its value when used, and the effect upon the parts when it is not employed.

The value of muslin, arranged in the form of a support, with mild compression, to the inflamed, thickened and enlarged scrotum, is not only in the support that it affords to the pendulous mass as well as the enlarged blood-vessels, but also the protection and limitation to the spread of the inflammation.

It is, on the contrary, the neglect of its use that often causes the inflamed and cedematous scrotum to irritate the adjacent portions, especially the inner parts of the limbs, which congestion continues to increase with the friction of the two surfaces, until the individual can only move around with the greatest difficulty and pain.

Compression, when employed upon the superior and inferior extremities, is usually made with bandages, of muslin, plasters, some woven material, or gum. Bandages may be employed in any one of the

usual forms by which the dressing or application can be retained, the parts protected, and equable pressure made upon the surface.

Compression may be applied in the local treatment of erysipelas, and to soothe and protect denuded surfaces of those recovering from eruptive fevers. It is a most important adjuvant in the treatment of herpes, Herpes zoster, urticaria, furuncular, and glandular affections, erythema, and eczema.

In acute eczema, it soothes muscular irritation, tones up the dilated capillaries, and prevents the escape of serosity into the tissues. Again, in subacute eczema it will enable the vessels to remove poured out products, protect the denuded surface, and exclude the air, which is very stimulating to inflamed and irritable parts, and so moderate diseased action. In chronic eczema of either the superior or inferior extremity, the use of water or oil dressings and local medication combined with systematic pressure with the bandage, will generally afford a most excellent result.

The use of the latter means, it will be seen, causes the dressing to soften up more rapidly the thickened and rough skin, to remove by the constantly graduated pressure infiltration, to equalize the circulation and increase the absorptive action of the medication used upon the surface. This same principle has been utilized with the most beneficial result in the treatment of ulcers of the lower limbs, especially the varicose ulcer. I might add in this connection, that the ordinary muslin bandage will generally answer for all ordinary purposes. I often, however, use (particularly when varicose veins are present) the well-known silk stocking, composed of gum and silk, or gum and cotton together, so as to be quite porous.

While I must acknowledge the great utility of gum by reason of its elasticity and consequent great adaptability in making equable pressure over the whole surface, nevertheless it combines with it other great objectionable features in its use to a diseased integument. The principle of its application as first brought forward by Dr. Henry Martin, of Boston, Mass., was indeed a valuable one, and can be used modified to affected parts of the skin. Gum bandages employed alone have the objectionable feature of preventing evaporation of the normal secretions from the parts, retaining heat and moisture on the surface, thus acting as a poultice, and macerating away the epidermis, which cannot be overcome by applying beneath the gum, muslin and any other substance. The only way this objectionable feature to the

use of this valuable agent can be overcome is to have the gum and a silk or cotton material woven together—preferably the latter, for its cheapness. The weaving should be moderately loose, such as in the specimen which I exhibit, so as to have a free porosity over the surface in order to allow a free evaporation of the secretions of the surface to which it is applied.

Compression can likewise be made with plasters, which usually consist of muslin, linen,



or sheepskin, upon which some simple or compound medicinal substance is spread.

They are not adapted for making compression over the general surface, and can be more advantageously used upon certain regions.

Their beneficial influence, cut in strips and applied to the surface, is most strikingly evinced in eczema of the lips.

The mucous surface in this disease is torn open with every movement of the lips, and all the lotions, ointments, and powders will not, at times, soothe the muscular irritation and heal the parts until they are protected and placed at rest. In order to accomplish this purpose, adhesive strips can be made to encircle and allowed to meet posteriorly at the nape of the neck. In this manner the movement of the lips is controlled, the raw surface protected, the irritation soothed, and the disease promptly and effectually arrested.

In removing the adhesive strips in cases of this description, care should always be taken to detach both ends and draw gradually to the centre, otherwise the mucous surface may again be torn open.

While compression can be made with bandages or plasters to the hands and feet for treatment of these persistent cases of chronic fissured eczema, yet their lack of adaptability, their inconvenience in application, the ease with which they fall from the parts, their unsightly appearance and interference with using the members make them very objectionable means to employ. They can only be supplemented in the feet with tightly fitting porous stockings applied over the dressing, or a stocking woven with some gum material in it.

The hands in a like manner can have a cotton or woolen glove, or what I like much better, and which I use, a woolen glove with cotton and gum in the fabric.

The latter form of the glove or any porous material which will fit tightly will retain the application on the surface, allow free evaporation sooth and protect the parts from irritating substances with which they come in contact, and arrest all muscular irritation that may arise. A woven cotton gum material closely adapted to the parts is equally serviceable in eczema of the popliteal region, the knee, and the ankle. It is requisite always in using compression to apply the substance used so as to support, protect, and place the tissues at rest. Great care, however, should always be exercised in order to prevent making too much pressure on the part and thus arrest the circulation.

BLOOD-LETTING—The abstraction of blood, either as a local or general measure, is one of the most powerful antiphlogistic remedies that can be resorted to in the treatment of skin diseases.

It is both a speedy and an efficient means of combating and arresting morbid changes of the integuments. It is especially applicable topically in chronic conditions after medicinal agents have been exhausted in vain attempts to cure many eruptive diseases. Blood may be abstracted either locally from the capillaries or generally from a vein or an artery. In the treatment of cutaneous affections by means of blood-

letting, local depletion should be used in the great majority of cases, general blood-letting only being resorted to in very rare instances. Topical blood-letting may be performed by puncturing, scarification and leeching.

PUNCTURING—Puncturing can be performed either by a bistoury, a tenotome, or a sharp-pointed needle-knife such as I exhibit, and can be named, used in this connection, the dermatome, and is a modification of the needle-knife which I used in the treatment of skin diseases as early as the spring of 1876.

This instrument may contain either a long or a short blade, which I here show in these two sizes for the purpose of convenience and to aid the operator. Upon one end of the dermatome is a spoon, while upon the other instrument on the same distal part is a curved portion which I shall presently refer to.

The first dermatome is about three quarters of an inch in length, and four lines in breadth, while the second one is some half an inch in length and two and a half lines in breadth.

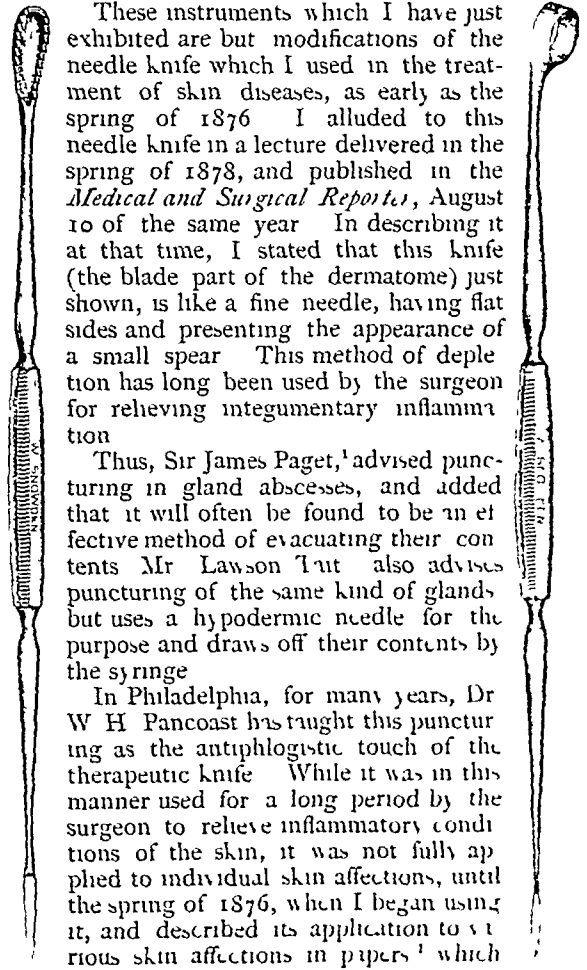
These instruments which I have just exhibited are but modifications of the needle knife which I used in the treatment of skin diseases, as early as the spring of 1876. I alluded to this needle knife in a lecture delivered in the spring of 1878, and published in the *Medical and Surgical Reporter*, August 10 of the same year. In describing it at that time, I stated that this knife (the blade part of the dermatome) just shown, is like a fine needle, having flat sides and presenting the appearance of a small spear. This method of depletion has long been used by the surgeon for relieving integumentary inflammation.

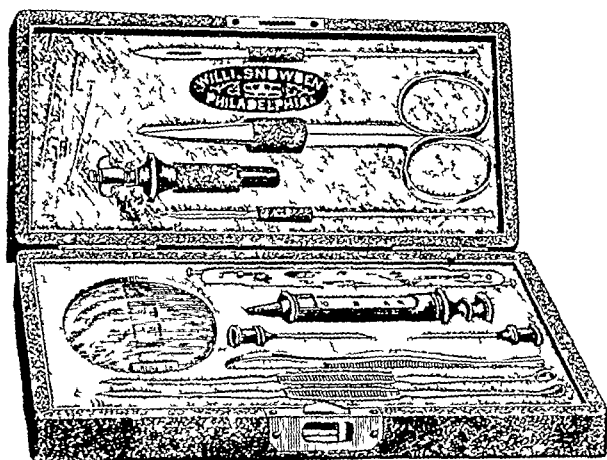
Thus, Sir James Paget,¹ advised puncturing in gland abscesses, and added that it will often be found to be an effective method of evacuating their contents. Mr. Lawson Tait also advises puncturing of the same kind of glands, but uses a hypodermic needle for the purpose and draws off their contents by the syringe.

In Philadelphia, for many years, Dr. W. H. Pancoast has taught this puncturing as the antiphlogistic touch of the therapeutic knife. While it was in this manner used for a long period by the surgeon to relieve inflammatory conditions of the skin, it was not fully applied to individual skin affections, until the spring of 1876, when I began using it, and described its application to various skin affections in papers² which

I read before the Pennsylvania State Medical Society in 1878, and 1879 and before

¹ *Medical Times & Gazette*, Vol. 1, p. 15, 1875.
² *British Medical Journal*, Vol. 1, p. 317, 1876.
See transactions of the Medical Society, Philadelphia, 1876, Vol. 1, p. 117.
³ *American Medical Association*, Vol. 1, p. 117.





the Section of Practice of Medicine of the American Medical Association in 1879. As I have already stated in one of the papers referred to, I have employed this method of treatment with success in inflammation of the hair follicles of the beard, in acne, in enlargement of the blood-vessels of the face, in chronic eczema, in excess of pigment of the skin, in erysipelas, in scrofulous eruptions, in boils, carbuncles, and in neuroses. Thus, in inflammation of the hair follicles of the beard, depletion in this way relieves the engorged glands, and drains off altered and vitiated blood. Further puncturing the patches of lupus erythematosus is a valuable means of relieving the hyperæmia present, as well as resulting with good benefit on the cellular infiltration going on in the derma.

A similar effect is produced in acne, by allowing the stagnated blood and the broken-down sebum to freely ooze from the small incisions.

Again, the abstraction of blood, by puncturing the surface, in enlargement of the blood-vessels of the face and in chronic eczema, especially where there is a large quantity of hypertrophied tissue, is an invaluable remedy. In these diseases it relieves the congestion and stagnation of blood in the vessels, equalizes the circulation, and so stimulates the action of the absorbent vessels, that all deposits may be carried off. Puncturing is equally efficacious in arousing the torpid tissues to activity in excess of pigment of the skin, and in allaying the pruritic troubles of old age. I have relieved, and with appropriate internal treatment, have cured some of the worst cases of pruritic difficulty in old persons by the above method of puncturing over all the diseased surface.

This application blunts the irritation of the cutaneous nerves, and relieves the capillary congestion set up by the morbid condition of the part.

After puncturing the surface, it should be allowed to bleed freely by the application of warm or hot water, either one or the other of which I use in all cases of local abstraction of blood. The relief afforded by this method of treating many cutaneous affections, will be best manifested by patients wishing a repetition of the operation, as has been my experience again and again in both dispensary and private practice.

The spoon at the other end of one of the derma-

tomes will enable the operator to make gentle pressure upon the sides of cut pustules, abscesses, etc., and allow their contents more readily to escape. The use of this instrument or any sharp pointed knife or needle for puncturing is not open to the objection of the lancet needle, provided with a stop, so as not to penetrate too deeply in the derma, as described by Hebra (*Wein, Med. Wochenschrift*, Jan. 1878,) or to the multiple scarifier invented by Squire. Knives thus made, can only penetrate so far by their arrangement, while the disease may require within a small space, both deep and superficial punctures.

In employing the ordinary, or needle knife for puncturing, on the other hand, the operator can allow the point to penetrate to various depths, according to good judgment and the thickened condition of the integument. For instance, upon part of the diseased patch, erythema may alone exist, while upon another portion either engorged capillaries, papules, tubercles, or excessive hypertrophy may be found.

The former state will necessitate slight puncturing, while the latter will need deep incisions, varying of course, according to the amount of hypertrophy present. In using the dermatome or knife, I usually hold it in the right hand, and rapidly thrust it into the surface, usually from one to six lines in depth, exercising, of course, great care to avoid puncturing important vessels and nerves. While I thus rapidly puncture the surface, and by the quickness of the incision prevent much pain, I also sponge off the surface with warm water, so that it may freely bleed. This latter procedure, already referred to, will prevent the blood from clotting in the incisions, and thus arrest its flow, will free the surface from the poured out blood, which very often obscures the continued operation. The object aimed at by the operation, is to relieve the congestion and stagnation of the blood in the vessels, to enlarge and equalize the circulation and thus awaken the action of the absorbents, in order that all deposits may be carried off.

When the bleeding is profuse, an impression will be made not only upon the part, but also upon the system at large. The operation may be repeated every second or third day, or according to the exigencies of the case.

SCARIFICATION—Scarification, the next best means of abstracting blood locally, is not as frequently employed in the treatment of skin diseases as puncturing. It is nevertheless very useful in dividing engorged blood-vessels in an inflamed surface in certain cutaneous affections. It can be performed with either a lancet, scalpel or bistoury, and the incisions should be made in parallel lines and should, if possible, correspond with the long axis of the parts. Incisions passed in this manner, lightly but rapidly over the congested and inflamed surface, divide the engorged vessels in the superficial part of the derma, and promptly permit their contents to escape.

The length, depth and number of incisions must of course vary according to the requirements in each case, care also must be necessary that large veins are not divided.

Scarification is employed chiefly to relieve both irritable and indolent ulcers especially of the extremities.

It is an exceedingly valuable method, which I have long used in ulcerating lupus, in connection with scraping and local medication

Scarification is also efficacious in relieving the engorgement and preventing gangrene in phlegmonous erysipelas. The operation may be repeated every second or third day, but the bleeding should always be promoted by the free use of warm water. It may also be well to add in this connection, that in some cases the depletion that may supervene may be very great, giving rise to marked systemic effect, even leading to syncope. The operator should therefore exercise great care in making the incisions, so as to divide only the superficial capillaries, unless he aims to have a systemic as well as a local impression, in which event deep cuts are advisable.

LEECHING—Leeching is another mode of topical bleeding that may be used in some cutaneous eruptions. It is, however, much inferior and much less applicable than puncturing and scarification. It can be resorted to when it occasionally happens that some individuals have so much fear of being cut with either a knife or needle, in which event the European or American leech can be substituted for either the puncturing or scarification. Again, leeching may be used in place of the latter two methods by means of an instrument called the artificial leech, which consists of a small scarificator, a cup and an exhausting syringe. Leeching is applicable to the same class of skin affections which have been named in puncturing. It is an especially effective local method of treating erysipelas and all glandular enlargements.

VENESECTION—Venesection (or opening one of the larger veins, generally at the bend of the arm, and allowing the blood to freely flow until followed with a systemic impression) has brought, in some instances in my hands, most decided relief in certain skin diseases. Generally bleeding should only be resorted to in those in which the individual is strong, robust, and shows every evidence of a plethoric state of the system. In such subjects speedy and efficient good will often follow general blood-letting. Thus I have had the most happy effect result from general bleeding in some cases of acute eczema, in which the local inflammatory action and the general irritation of the system both subsided. Again, in some cases of general psoriasis, I believe I have seen most excellent results follow bleeding. Venesection, used in certain skin affections, weakens the action of the heart and lessens as a result the circulation, and consequently lessens the temperature and congestion of the integument. It likewise lessens the irritability of the nervous system, renders the blood more healthy, and assists both locally and constitutionally in promoting the action of other remedies.

INCISIONS are employed upon the integument with the knife, whether the bistoury or scalpel, for the purpose of exposing, dividing, or removing the parts. One of the chief values of the incisions is to expose tumors in the skin, which can often afterwards be removed by other means, which I shall presently refer to. It is in this way we often deal with sebaceous cysts and lymphatic enlargements. Incisions may be employed for the purpose

of dividing the blood vessels, and thus abstracting blood from a part, as already alluded to, under scarification, or cut off an abnormal and often excessive supply of blood to a portion of the skin. It is thus that the latter procedure is often resorted to in arresting the developments of feruncular affections, warty growths and the enlargement of the blood vessels in rosacea. It is a method that has been advantageously used, especially by Nussbaum, to arrest and assist in curing obstinate ulcers. This local means of treating old ulcers is particularly prompt and satisfactory, the patients being narcotized, a circumcision, as recommended by Nussbaum, is made around the ulcer, and half an inch beyond the circumference or outer rim of the sore the incision must be of sufficient depth to penetrate to the fascia. A large number of blood-vessels are thus severed, often causing considerable hemorrhage, which can be arrested by inserting into the incision a piece of lint, and tightly compressing the ulcer with a bandage.

The strip of lint thus inserted not only arrests the bleeding, but also prevents the cut from healing up during the night. On the following day the lint and bandage can be removed and the ulcer dressed. Ulcers treated by incisions in this way have thus cut off from them the excessive supply of blood that produces so much unhealthy pus, which now lessens and becomes laudable. The supply of blood having decreased, there is consequent less exudation, cell formation is now permitted to go on, and the ulcer gradually decreases in size until it entirely disappears. A free incision into abscesses, suppurating glands and through sinuses will not only evacuate and drain off the pent-up material, but will also give the diseased integument an opportunity of healing properly from the bottom, and thus avoiding unsightly scars.

In the event that any unsightly scars should arise from either neglecting the above procedure, or from other inflammatory affections of the skin, they may be removed or improved by a subcutaneous incision, as proposed by Mr Wm Adams.¹

Incisions are likewise made into local inflammatory patches, as in sycosis, in erysipelas, and in carbuncles, to relieve the tension of the parts, to divide some of the sensitive nerves, as well as to afford a free exit to the pent-up inflammatory products. Incisions may be resorted to for the removal of a portion of the integument, they are not necessarily followed, however, by severing the normal or abnormal tissue from the part, unless the cut, or cuts, are made expressly for that purpose. When they are made for cutting off the tissue it constitutes more properly, another mechanical procedure which I shall now refer to.

EXCISION—Excision consists in the removal of a part, either by incision of the knife, by ligature, or by crushing. Warts, horns, pigmentary and hairy moles are often eradicated from various portions of the integument by excision with the knife. Excision by the knife is also largely used for extirpation of many of both the benign and malignant tumors of the skin.

Callosities, as well as curved, twisted and the growth of the nails, are often only

¹ *British Medical Journal* vol 1 p

cision of a certain amount of the offending material by means of the knife. Excision may be resorted to by the same means for removing chancre, and thus lessening the local spot of irritation as well as decreasing the power of the infecting patch.

In case that children or adults, more particularly the latter, have several superficial dense indolent glands, which have resisted and been intractable to all ordinary treatment, excision will not only often prevent the neighboring glands from being affected, but will also avoid the evil effects of prolonged suppuration and its ill consequences that may follow.

Disfiguring scars, particularly when there is a change of color in the skin, the surface is rough or irregular, often attended with the formation of prominent bars and ridges of scar tissue may be conveniently and advantageously excised, leaving usually a simple but clean scar, where formerly existed an unsightly deformity.

Excision may likewise be performed through the agency of any substance that can sever the tissues, either by a rapid or slow process, as by the galvanic or thermo cautery, by the ligature and by crushing.

The galvanic cautery, which is the generally preferred method of excision by the cautery, is usually performed with a loop of platinum wire connected to a suitable galvanic battery, and is both a rapid, bloodless and powerful mechanical means of removing many of the hypertrophic growths of the skin, especially horns and warts.

It is particularly applicable to eradicate venereal warts and pedunculated tumors of the skin. The ligature, whether it be constructed of silk, flax, gum, wire or animal tissue, can be advantageously employed, only, either by the fingers or by means of a needle, in excising by slowly strangulating all the included strictures. It is a bloodless operation, often being the very best mode of removing nevus formation and vascular warts from certain regions of the body.

CRUSHING is another very excellent mechanical means of excising parts, as proposed by Chassaignac, of Paris, which, although less rapid than the knife, is still greater than with the ligature. This crushing instrument, the *ecraseur*, consists mainly of an articulated chain or wire which embraces in its loop, once applied, the tissue, which is gradually but effectually crushed by slowly turning the handle of the *ecraseur* to which the chain is attached. It not only possesses the combined advantages of the knife and the ligature in excising many hypertrophic growths of the skin, but it also leaves a small wound, which is usually attended with slight inflammation and rapid healing.

ENUCLEATION —Enucleation is a form of avulsion, and consists in rapidly peeling out diseased structures either with the fingers or some hard substance, generally the handle of the knife or forceps. It is a method often employed advantageously after the skin and capsule has been divided over morbid growths. It is in this way that enlarged lymphatic glands, often deeply situated in the neck, are removed with perfect safety, and the operator running no risk of wounding any of the important blood vessels in that

region. It is also, perhaps, the easiest and most ready means of extirpating sebaceous cysts.

SCOOPING —Scooping is a species of enucleation, now much in vogue, for removing with a smooth or sharp spoon broken-down products and pent-up secretions. It is an invaluable method of emptying cutaneous abscesses, sinuses, and certain kinds of strumous glands. Dr Clifford Abbott, in a paper read at the last meeting of the International Medical Congress, states that the result of such operative procedure has at least equalled his own and Mr Teale's most sanguine hopes. Dr Von Lesser, in an article on the treatment of strumous glands, in the *Central f Chirurg*, also uses the same procedure. He first punctures into the gland, after which he introduces through this wound a small sharp spoon, and scrapes the interior of the gland, by which he claims the disease is cut short, ulterior dangers are avoided, and unsightly scars prevented. Scooping out of strumous glands by a Volkmann's spoon is also advised and highly recommended during certain stages of their development, by Dr Frederick Treves. In resorting to the spoon, it should be upon those cases which have usually resisted treatment, and in which the glands are closely adherent to the skin. Further, all evidence of active inflammation should be absent, and the glands themselves should either be becoming soft or be softened. Glands in such a condition can either be attacked through sinuses, should they exist, or by puncturing or incising the integument and then passing in the spoon and scooping out the soft, cheesy portions, which readily yield and come away. A material is thus rapidly removed which would require by nature's process a long and tedious time to eliminate, attended with general derangement of the health, in addition to the local disfigurement that often follows. If, on the other hand, the spoon should be employed on glands that are freely movable under the skin, the products might escape from the glands into the loose cellular tissue that may be opened up, giving rise to the formation of abscesses, sinuses, and their evil consequences.¹

SCRAPING —Scraping, although a very old mechanical procedure of treating some cutaneous affections, unfortunately is not receiving at the present time the consideration and attention to which it is intrinsically entitled. It is but a modification of scooping, just considered, and can be used by means of the spoon, providing a little more force is applied.

Scraping can be performed by means of any hard substance employed with a certain amount of force, to bring away any material from or within the integument.

It is usually employed with the side, back or handle of a knife, but often the forceps, scissors and groove director are brought into requisition for the operation. The modern instruments, however, which are especially designed for scraping, are the spoon, smooth, or a little roughened, and a round or oval instrument something like a spoon, having a hole through its centre to permit all substances to

¹ A full account of this form of treatment will be found in *Scrofula and its Gland Diseases*. By Frederick Treves F.R.C.S. London Eng 1882 p 191

escape through, with the edges moderately sharp, called the curette

The object of this instrument is to tear and break down the parts to which it is applied, generally diseased tissue, or abnormal products. The purpose of this method is to rid the surface, or parts within the integuments, as much as possible by means of this mechanical procedure, of morbid products, thus facilitating, as well as assisting, local remedies to act more rapidly and bring about a cure.

Scraping, as has already been stated, can be accomplished by any hard substance, and probably not any one is better than a sharp sea-shell, which has been used and handed down from the early times in certain parts of Egypt. Thus Dr Josiah Williams, in an article published in the *British Medical Journal* on medical notes of travel in Egypt, speaks in this manner of the native treatment of syphilis in young girls.

"Close to the town (Souakin) in the Red Sea, is a little island, called originally Sana Gin, and from which the town takes its name.

"The girl is taken across to this island by six women, she is then laid naked on her back—on each arm and each leg sits a woman, another on her chest. The operator, another woman, provided with a sharp sea-shell, scrapes away in the vagina until she is satisfied that all diseased parts are removed, and then, utterly regardless of the shrieks of the girl, gets a handful of sand from the sea, and rubs that in.

"The disease is then supposed to be cured by this rather rough operation."

This primitive method of scraping away diseased tissue has been used from the most remote times, more particularly along the sea-board portions of various countries by the natives. It makes very little difference, however, whether the morbid tissue be scraped away either by one or the other ways—just so the offending portion, or as much as can be, is removed as well as possible from and among the healthy tissue.

The application of scraping is, perhaps, no better illustrated upon any class of cutaneous affections than upon strumous, broken-down lymphatic glands. In very many of these cases it will require more than the ordinary scooping out, the parts within as well as without being covered with exuberant granulations, disfiguring sinuses filled with filthy discharges, all of which must be eradicated by thoroughly scraping off and out of the tissue these abnormal products, to save the system from being poisoned, and to bring about some local beneficial effect.

Scraping is equally efficacious in assisting old, indolent abscesses, and bubos complicated with the development of unhealthy granulation. It removes from the parts an offending material, which nature is often unable to overcome, and places them in a most suitable state for other applications.

In epithelioma, in old ulcers, and in ulcerating lupus, scraping is often an essential, as well as a requisite, part of the treatment.

In warts, horns, and callosities, it is usually necessary to scrape the hypertrophies well before applying

local medication, providing it is the aim to arrest these affections by this method of treatment.

In some old and exceedingly chronic cases of circumscribed psoriasis or eczema, where the surface is covered with thickened scales or hard and unyielding crusts, no means will act half as advantageously as scraping off these products and afterwards medicating the surface beneath by a seton. A seton in the form of a thread of silk is occasionally used for the treatment of gland tumors. The measures already enumerated, or that to be described will be found however, in the majority of cases, far more preferable. The employment of the seton in cutaneous affections, therefore, is very limited, being applicable only in particular to indurated glands in which the object is to effect their elimination by suppuration. In the event that it is decided to use a seton, a silk thread should be selected for that purpose, and passed entirely through the long axis of the gland. This mode of treatment will within a few days cause the gland to take on active inflammation, which will terminate in suppuration in from three to four weeks.

CAUTERIZATION—Cauterization can be performed, in addition to the use of caustic medicinal remedies, by heating a metallic substance to a high degree of temperature, or by means of the solar rays and a lens, and thus accomplish the same result through the burning-glass. The mechanical cautery, as usually employed, consists simply of variously shaped pieces of iron fixed in wooden handles, although needles, pins, and other metallic substances can be heated in the ordinary fire, spirit lamp, or brazier to either a white or dull red heat and rapidly applied to the affected integument. While the measures just enumerated are the most commonly employed, yet it is often very difficult to maintain and control them according to the degree of temperature required by the operator. For instance, in one case a white heat may be desired, while in another a dull red or black heat may be required, consequently the effects of the application of these different degrees of temperature will greatly vary. Another and more efficient method of applying heat has been made in the form of the galvano and thermo cautery, means which will enable the operator to have the temperature perfectly under his control at all times. The application of the actual cautery in some of the more common cutaneous affections has proved of inestimable value, and in many diseases has superseded the use of local medicinal substances. Thus its use in feruncular affections has been productive of the most happy results. Especially has it been efficacious used, preferably in the form of Pagnelin's thermo cautery, in the treatment of carbuncle. In this affection, particularly where there is a tendency to great exhaustion from excessive and protracted suppuration, the thorough application of the actual cautery will lessen the liability to such a condition, will quickly promote separation of the dead tissue, and will prevent, as has been shown by Vermeuil, Post, Connor, and particularly by Langenbeck, the development of pyemia.

Decidedly good results of the actual cautery are also well seen in its application to old ulcers, exuberant granulations of the skin, in epithelioma and in ulcer-

ting lupus, which may either limit these affections and lessen suppuration, or be followed by the formation of a healthy granulating surface, which soon cicatrizes, with less deformity in the shape of scarring than by almost any other method of treatment

It can be used advantageously in angioma, nævus chancroids, elephantiasis arabum, in destroying the vessels and hypertrophied tissue in the second and third stages of rosacea, and for the removal of horns and warts Dr Cellier in a recent issue of the *Journal de Med et de Chir Pratiques*, recommends the following novel means of cauterization for the removal of warts An ordinary pin is passed through the base of the wart, the skin protected, after which the head of the pin is heated in the flame of a candle, causing the hypertrophic growth to become white, fissured, and to come away in a few minutes on the point of the pin

Dr Cellier further adds, that it is only necessary to remove one wart, though there may be a dozen present on the part, all the others will disappear without treatment Pins or a shoemaker's awl thrust into nævus at a black heat, as was suggested in a clinical lecture by Dr Jas L Little (*Medical News*, May, 1883), will often effect a cure and leave but a slight cicatrix It is probable that one of the very best curative measures that can be used for scrofulous glands is in the form of cautery puncture The thermo-cautery points employed by puncturing the glands with it in this manner has been long used with great success in France It has been equally efficacious in England, and especially practiced and described by Dr Frederick Treves It is a method that is applicable to any enlarged gland, preferably those which are adherent It is necessary in making this application to fix any of the moveable glands by seizing them between the fingers, after which a medium cautery point, having the thickness of either a No 7 or 9 American bougie (the size of the point, of course, varying according to the dimensions of the gland enlargement) is passed rapidly through the skin into the gland and twisted around within its substance, after which it is withdrawn The ordinary dressing follows, unless pus or a soft cheesy material escapes, in which event a poultice applied will be very advantageous If the gland contains no pus or soft cheesy material, a slight acute inflammatory action sets up, attended with a little enlargement and discharge These effects quickly subside, owing to a healthier action which has been established by the operation The gland slowly shrinks and a permanent cure soon follows

If pus and broken-down products are present, the opening thus made will give them a free exit, the suppuration gradually lessens, and the part heals up within a favorable period of time

In circumscribed, thickened and infiltrated spots of eczema, which do not yield to the ordinary treatment, the application of the actual cautery has been followed, in some typical cases under my care, by complete recovery

In conclusion, let me add that these mechanical remedies, just enumerated, may be used separately or combined, or they may be employed in conjunction

with constitutional treatment, and with the assistance of certain appropriate local medication In some cases they can be used alone, at the very beginning of certain cutaneous affections, with decided curative results In others they will often be found to be invaluable adjuncts in arresting some very obstinate cutaneous affections In still other instances they are the only means that can be resorted to after medicinal remedies have utterly failed

It is this latter class of intractable chronic skin diseases to which, in closing, I wish especially to commend the mechanical remedies as being very often curative It is necessary, however, to state that if one or the other of the remedies that have been named be selected and employed, it should be done with good judgment, skill, and a thorough knowledge of the subject under consideration For example, in employing massage the operator should have a certain knowledge of physiology, anatomy, and be thoroughly versed upon medical rubbing, otherwise more harm may be done than good accomplished

Again, in resorting to blood-letting, compression, cauterization, etc, sound judgment, combined with great care both before, during, and after such procedure, is always essential and requisite to accomplish in a satisfactory manner the desired result If, therefore, these mechanical means be suitably handled by physicians, they will be found to be at all times powerful remedies for many of the so-called incurable skin diseases

THE ALIMENTARY CANAL IN BRONCHITIS AND PHTHISIS

BY THOMAS N REYNOLDS, M D, DETROIT, MICH

[Read to the Section on Practice of Medicine, Material Medicine, etc, June 1883]

An abnormal condition of the alimentary canal and necessarily of the portal and lacteal systems proceeding from it, is often the predisposing cause of both acute and chronic affections throughout all parts of the entire respiratory apparatus

But speaking here only of bronchitis and phthisis, and first of bronchitis, we may say that acute tracheo-bronchitis is frequently produced by excess in the dietary, with proportionately incomplete waste elimination Of course there is generally an exciting factor, most commonly chilling of the surface, but that relating to ingestion and elimination is in the mass of cases to which we refer—the great underlying principal cause, which only needed some slight provocation to produce an attack An unusual general fullness of the blood-vessels renders the body more susceptible to local congestions, and when, added to the fullness there is the sepsis of retained and reabsorbed tissue waste, congestions become true inflammations, which are purulent in character, largely in proportion to the amount of retained excrementitious matter

In young and otherwise healthy subjects of acute tracheo-bronchitis, this condition of body is usually the principal obstacle to a speedy recovery

With this fact in mind, the treatment should be prompt evacuation of the bowels, and restriction of the diet to a light liquid form, and quiet and an equally warm surface should be maintained. If severe, the patient should be ordered either to bed or a comfortably warm room, and in any case he should be clothed a little extra and warned against becoming chilled. It is quite as important to protect the lower extremities from cold as it is to protect the chest, and not less important during an attack to protect the wrists and arms.

The cathartic removes obstruction and promotes elimination from the intestinal mucous surface, and abundant warm drinks do the same from the great secreting structures of the kidneys and skin. The withdrawal of solid food soon brings about sufficient depletion of blood, and the withdrawal of fats and nitrogenous substances at the same time, lessens the excess of animal heat, produced probably more largely by the assimilation and disassimilation of these two elements of vital force and tissue construction, than by that of any other elements of food supply.

Besides the depurating effect of the cathartic and the hot drink diet, a revulsion of nervous energy to the bowels, kidneys and skin takes place from the excited vessels of the inflamed tracheo-bronchial mucous membrane, which cannot usually be excelled, and probably not equalled, by aconite or veratrum viride or any other medical material.

This revulsion of nervous energy and vascular excitement will also be permanent, if warmth of the surface be likewise observed.

This should be maintained by means of extra clothing or sitting near the fire, rather than by heating too much the atmosphere of the room.

If these features in the management are really enforced, no other treatment is necessary in uncomplicated, acute tracheo-bronchitis.

Astringent, stimulant, and saccharine cough mixtures commonly used, have neither theoretically nor practically any beneficial influence over the affection. On the contrary, they tend to prolong it by a deleterious action on the stomach, bowels and liver, and in some degree also on the kidneys and skin.

If medicines be resorted to at all in the first stage, the best, both in theory and practice, are full doses of morphine and quinine, either separately or combined, or small frequent doses of aconite or veratrum viride. But these do not usually equal, either in immediate or ultimate results, the treatment without special drugs, which we have previously outlined.

Whatever be the treatment, it is a great desideratum to cut the inflammation short, for besides the tendency to extend to the capillary tubes, which renders it immediately dangerous to life as well as more damaging to lung tissue proper, an ordinary bronchitis, when prolonged and purulent, often necroses and thickens irreparably parts of the mucous membrane, and produces fibroid thickening of the contiguous peribronchial connective tissue, and always, especially when severe, renders the patient much more susceptible to a succeeding and probably worse attack. Every succeeding attack adds an increment of dim-

age and functional impairment to the bronchial and pulmonary tissue, and the patient then has more or less wheezing, asthma, emphysema, perceptibly impaired elasticity in breathing, with a catarrhal and fibroid phthisis pulmonalis always impending, and this is chronic bronchitis, which we try so especially to avoid when treating the acute.

If derangement of the primæ and secundar viar is causative of acute in the healthy, it is more so in those previously affected, especially if there be loss in the bronchial mucous membrane. There is in the chronic form the same necessity for harmony between the food supply and assimilation, and disassimilation and elimination.

But an older person bears excess in the dietary much worse than a younger, for his capacity is not so good for extraordinary efforts in constructive and destructive tissue metamorphosis, or for performing the more purely chemical changes.

So any unusual high living, without sufficient accompanying exercise, will invariably increase the chronic bronchitic man's cough, and if his diet be not properly regulated and the emunctories slightly stimulated, he will be likely soon to have increased expectoration, or a pronounced attack of the acute.

The different so-called expectorants rarely do any special service, and many do very serious harm in chronic bronchitis by interfering with both gastro-intestinal and hepatic digestion. But if the secretion be abundant and purulent, grain or in of quinine four or five times a day, proves generally very beneficial, lessening the secretion of pus, without impairing digestion, and improving the tone of the vascular system.

As to diet, it is not wise to press stimulants and strong nourishment, when not readily and perfectly digested.

As to clothing, while it should be sufficient in the elderly bronchitic patient, it should not be excessive. A common mistake is that of wearing too much on the chest. I have seen a few cases of striking improvement in patients going about, from removing two or three extra undershirts and a chamois leather lung protector.

Physical exercise involving free use of the lungs restores wonderfully their normal elasticity, after an attack which has left thickening of the peri bronchial connective tissue. It dissipates the thickening and adhesions, just as continued free motion dissipates the thickening and adhesions from around a recently inflamed joint. This is important in the lung for other than immediate comfort in breathing, for if there remain no hyperplasia of connective tissue there can follow from it no subsequent sclerosis and degeneration—in other words, no fibroid phthisis.

To prevent catarrhal phthisis proper is nearly always, to prevent too frequent and prolonged attacks of suppurative bronchitis.

To treat properly catarrhal or advanced fibroid phthisis, either separately or combined, is to treat it as one would an inaccessible suppurating part anywhere else, not by cod liver oil or any other supposed specific alone, or by specifics at all if they nauseate, or in any way interrupt or interfere with normal di-

gestion But a frequent and sometimes liberal use of quinine is immensely useful in these suppurating lesions, reducing body heat and the secretion of pus, and acting otherwise as mentioned in speaking of suppurative bronchitis

If early in its course, the patient should cultivate an out-door life, with plenty of physical exertion, and wholesome mental occupation Under this *regime*, digestion will soon become perfect, tissue building will go on properly, the lung cavities will become more firmly circumscribed, and will often cease to suppurate, rendering recovery complete

One is often asked what is the best region to go to, but probably any region free from malaria or other unwholesome emanations, with a temperature permitting an almost constant out-door life, with exercise, will answer the purpose

I shall not refer to tubercular phthisis, further than to say that it has sometimes also seemed to me to be excited or produced, in those of tubercular family history, by a profuse and prolonged bronchitis, which, in turn, followed upon a prolonged constipated habit and general defective elimination, caused again, in its turn, by inactive in-door life

In dyspepsia with constipation and septic fermentation of the ingesta, it would seem not impossible that the septic products which result, may be carried by the portal and lacteal vessels direct to the pulmonary arterioles and capillaries, and be there sometimes auxiliary in causing bronchitis and phthisis, in any or all of their forms

MEDICAL PROGRESS

NEW REASONS FOR THE USE OF WOMAN'S MILK IN NURSING —M Béchamp has discovered for us a new element in woman's milk, by which it differs essentially from the milk of other animals, not only by its density, quantity of sugar, of fats, of salts, and of water, but by the presence of a special ferment which modifies considerably its digestive qualities This ferment is called zymase by M Béchamp, and its history classes it among the microzymas, which he considers as integral parts of the normal tissues of the organism It is these microzymas which, becoming diseased, are converted into bacteria This zymase has the property of converting starch into sugar In cow's milk, besides the caseine, there are two distinct albuminoids, one of which is soluble in water after being precipitated by alcohol—this is galactozymase which is capable of dissolving the starch of farinaceous substances, without converting it into sugar The zymase of woman's milk has the saccharifying property To obtain it, the woman's milk is slightly acidulated by acetic acid, then is added at least three times its volume of alcohol, 90 centesi The albuminous precipitate, which is very abundant, is received on a filter, washed by weaker alcohol to remove the sugar of milk, the fat removed by ether, then treated with distilled water After the lapse of several hours it is again filtered, and the solution obtained possesses in a high degree the property of dis-

solving and converting into sugar the starch of farinaceous substances To study this new zymase properly, Béchamp used 500 cubic centimetres, but to verify the fact 20 to 30 cubic centimetres will be sufficient, and in using 10 cubic centimetres of water to dissolve the precipitate, the solution should render fluid and convert into sugar 20 to 30 cubic centimetres of starch to the twenty-fifth part of the farinaceous substance used To avoid all error, it is well to wash the breast with water slightly mixed with creosote, and to receive the milk in vessels washed by the same The milk tested has been taken from the breast just before, just after and during the nursing by the child, and the results are always the same

The important conclusions so reached are, that no milk from other animals can replace the woman's milk, they are very different in character, and furnish a strong reason to the practitioner for encouraging nursing by the mother or by some other woman. Again, this explains the benefit of still nursing from the breast after the infant has begun, at 4 or 5 months, to use farinaceous substances, which has seemed to some to be superfluous, or even dangerous. According to experiments, a nursing of 50 grammes gives enough zymase to make 40 centigrammes of glucose, which, added to the ferments of the saliva and of the pancreatic juice, gives the child at the breast at least three products of secretion capable of transforming starch into sugar, and assisting in its absorption We are warranted, then, in concluding as follows

1 The woman's milk contains ferment capable of saccharifying crude or cooked starch

2 The special nature of woman's milk, due to the presence of zymase, renders it preferable to all others

3 An equivalent for woman's milk cannot be found in the milk of the cow, the bitch, or the ass

4 The milk of domestic animals, pure or mixed, may be taken when woman's milk cannot be had, but it is not of the same value

5 We should, as far as possible, nourish infants at the breast in preference to all other modes of nursing or artificial feeding

6 When children are old enough to partake of farinaceous food, woman's milk is still useful in converting the starch into sugar —BONCHUT, *Paris Medical*, June 2, 1882

THE SALIVARY DIGESTION OF STARCH BY INFANTS — This writer used for his purpose corn-starch previously boiled, cooled into a paste, put into little linen bags, and given to infants to suck for two minutes at a time Pary's test was then used, the corn-starch paste exhibited before the experiment bore no evidence of sugar change The linen was thoroughly boiled without discoloration of the solution The bags with their contents were in each case thrown into a test tube These observations are given in tabular form, in twenty-one cases of children varying in age from six days to seventeen months The sugar change was noted in all but three, one of these was a babe six days old (fed on breast milk), whilst in another babe seven days old a marked reaction was observed (also fed on breast milk) Five of

these cases, relatively 4 months, 5 months, 8 months, 13 months and 17 months, fed on corn starch and crackers, were recorded as follows First, well marked, second, slight, third, breast and crackers marked, fourth, well marked, fifth, condensed milk, none The writer makes the following conclusions

The saliva of some infants possesses the property of converting starch into glucose, regardless of age When such a condition is found to exist, a small quantity of well-prepared farinaceous food is valuable as an element in the diet, incorporated with mixed cow's milk We would add, in view of the recent experiments by Béchamp, that the food be better mixed with the breast milk of the nurse —KEATING, *Boston Medical and Surgical Journal*, July 12, 1883

THE FÆCES OF STARCH-FED INFANTS —This is a record of the examination of the fæces in 24 cases of children varying in age from 45 days to eighteen months, and fed on condensed milk and crackers The presence of starch was exceptional, and apparently in no degree dependent upon the age of the child The stools of eighteen out of the twenty-four contained either no starch or but a trace, that is, no more than is frequent in the evacuations of a healthy adult upon a mixed diet Six of these specimens were from children of three months or less, the youngest being but forty-five days old In many cases the broken and empty cellulose envelopes of the starch granules were clearly discernible

The six infants in whose evacuations a noteworthy amount of starch was present, were aged respectively three, four, ten, thirteen, fourteen and seventeen months The eldest two were in very bad health The facts presented, appear to justify the following conclusions

First, that many infants of under three months can digest starchy foods

Second, that the individual variations in this regard are so numerous that no broad and general statement can be made as to the period at which infants begin to digest starches, and

Third, that the physician can be absolutely certain that a farinaceous ingredient in the diet of a young infant is beneficial only by an examination of the digesta under such diet

This paper was read June 6, 1883, before the College of Physicians of Philadelphia, and in the discussion which followed, both Drs Keating and Randolph mentioned, as of interest in this connection, cases where fat was found in the fæces, after administrations of cod-liver oil had been used —DR N A RANDOLPH, —*Boston Medical and Surgical Journal*, July 19

SPINA BIFIDA SUCCESSFULLY TREATED AFTER THE ROBSON METHOD —Dr R I Hayes, of Rochester, N Y, reports a case in the *Medical Record*, where he followed the new method laid down by Mr Robson, of Leeds, England, in the *British Medical Journal* The patient was a female of 9½ weeks, the tumor in the lower dorsal region was more than twice the size of a hen's egg, fluctuation was felt readily with one hand on the tumor and the other over the anterior fontanelle Aspiration was used first, five to

six fluid drachms being all that could be obtained, the tumor was then dissected, and a double sac found the outer sac not communicating with the spinal canal, but being the source of the fluid aspirated The true sac was then aspirated On the introduction of the needle, the patient collapsed, was restored, and ten fluid drachms removed and the sac opened, the superfluous portion of the membranes were then removed, and union formed by six interrupted catgut sutures Some twenty small grafts of fresh periosteum from a rabbit were introduced on the surface of the membranes, and the external flaps, fatty tissue and all, trimmed and closed Union occurred throughout the wound by first intention, at all but one joint Here a sinus existed, through which clear serous fluid drained very freely—several fluid ounces daily for four or five days, then more and more sparingly, until the tenth day, when the sinus at once closed Eleven weeks after the operation, the child is remarkably bright, the tumor is reduced one-half in size, of the feel of fatty tissue, not especially sensitive, and reasonable pressure fails to produce any effect Dr Hayes makes two points: 1st, care in running a portion of the fluid before free incision as a guide to the degree of tolerance, and 2d, careful maintenance of such a position in the patient during and for some time after the operation, as will best favor the retention by gravitation of the largest amount possible of the cerebro-spinal fluid

ANGULAR ANCHYLOSIS OF FEMUR AT THE HIP JOINT, TREATED BY SUBCUTANEOUS DIVISION OF THE SHAFT AT THE TROCHANTER —Dr Stephen Smith gives a full and very interesting report with illustrations, in the *Medical Record*, of successful treatment of this affection He used the fenestrated canula saw of Dr Geo F Shradly, which consists of a trocar, fenestrated canula, and a staff with handle and blunt extremity A portion of this staff at a short distance from the extremity is flattened, one edge being made into a knife-blade, and the other edge being provided with saw-teeth The staff replaces the trocar, and then the saw or knife can be worked to and fro within the canula, or fixed as one piece by a thread-screw The soft parts are protected from injury no matter in which way the instrument may be worked—the saw and knife being guarded on all sides except on the limited cutting edge In this case a division was made at the small trochanter, and a non-union was liable to occur from displacement a half tenon and mortise was cut, causing the fragments to lock The operation was successful, but while adjusting the plaster-of-Paris dressing, the lower fragment of the femur slipped twice out of its interlocked position, but was replaced and remained satisfactorily About a week after the operation an abscess formed, which was superficial, and extended nearly to the knee, but soon closed The patient now walks without any support, erect as she would with a healthy limb, and with but a slight hilt

MODERN CIRCUMCISION — he om 1 circular instructions, Jan 10, 1883 Press a Circular, issued to the itic

Baden, sets forth that the only persons who are to be permitted for the future to perform the rite of circumcision, shall be such as shall be authorized by the Jewish Supreme Council. 1 The knife must be freshly polished and the forceps properly purified. 8 The quadrangular pillow employed, as well as the sausage-shaped ring, must be frequently renewed, and before every circumcision, covered with new gutta-percha tissue or new sarsanet. 7 The operator, immediately before the operation, must carefully wash his hands with soap, and cleanse the nails with a good hair brush, taking peculiar care that no dirt be allowed to remain under the nails, more especially under those of the thumbs. The hands must in addition be washed in a 5 per cent solution of carbolic acid. The operator is no longer to suck the wound, nor irrigate it with wine ejected out of the mouth. Instead of this the blood is to be removed by gently wiping the wound with pledgets of purified boracic lint dipped in wine. The wound is to be closed by being enveloped in a strip of 10 per cent boracic lint. The further removal of fluids and blood clots is only to be effected by means of a new sponge previously soaked in a 5 per cent carbolic solution or by salicylized lint. A medical man must be immediately called in if hæmorrhage be considerable, and cannot be at once stopped, or if it be from an artery. Such authorized persons are forbidden to perform the rite, if suffering from any infectious disease, and until complete recovery has taken place.

A DOCTOR'S MODEL HOUSE—Really, our English cousins are becoming too much of a puzzle to us. Here we have just established the fashion, which has become wide-spread, of houses with open fire-places and windows that are easy of access and have facilities for the free entrance of fresh air, in accordance with English prejudices. And now we find the *Lancet*, under the above heading, congratulating Dr Hogg, of Bedford Park, Chiswick, on his successful attempt to solve the vexed question of house-heating and ventilating, by building a house in the Queen Anne style, where no window can open, and where there is no fire-place except in the kitchen.

He has placed a large passage under his hall for an air-chamber that can be cooled in summer and heated by steam-pipes in winter. This air then penetrates throughout the house by apertures in the skirtings and cornices. In the roof of the house is a foul air chamber with which each room connects by exhaust shafts. The kitchen fire is utilized to produce exhaust suction in a large shaft running from the foul air chamber to the back of the fire, and travels again up and out by the chimney. It is calculated that the atmosphere is entirely changed throughout the dwelling in twenty minutes without the slightest draught. The even temperature throughout is an argument in favor of health, the absence of dust from fires and the small cost of heating is an argument in favor of economy and housekeeping.

ICTHZOL is obtained from a bituminous mineral at Seefeld, in Tyrol, which is subjected to dry distillation in iron retorts, resulting in the

production of a tarry-like substance of a peculiarly disagreeable odor, from this, after long standing, a thin fluid oil is separated. After thorough purification, it is treated with concentrated sulphuric acid. The superfluous sulphuric and sulphurous acids have then to be separated from the sulphate which is formed. It has the consistency of vaseline—partly soluble in ether and partly in alcohol—totally in a mixture of the two. Forms an emulsion with water, and may be mixed in any proportion with vaseline and fat. The mineral from which it is derived contains in its matrix a great number of fossil imprints of fishes, and the bitumen is regarded as the animal remains of these—hence the name.

It has been employed with good results in eczema, and Prof Unna, of Hamburg, speaking of its use in acute and chronic rheumatic arthritis, says "I believe from my few cases I may say that, up to the present time, there is no external application of equal efficiency." It has not been found useful in simple neuralgias. If added to a large quantity of water and heated, the ictazol is decomposed, giving off H_2SO_4 , S &c. Employed by way of inhalation in this manner, Herr Unna has observed remarkable results in affections of the respiratory tract.—*Med Press and Circular*

SUBCUTANEOUS INJECTIONS OF ETHER—Dr Moizard in the *Journal de Med et de Chir*, calls attention to the care that must be taken in selecting a proper site for these injections. When used upon the forearm paralysis has ensued, especially of the extensor communis digitorum, in one case lasting about a month. These injections have become useful in adynamia from various causes to sustain the enfeebled forces, and the local inflammation produced can be generally prevented by inserting the needle deeply into the subcutaneous cellular tissue, and a selection by preference should always be made where this tissue is the thickest, as over the superior and external parts of the thigh.

The amount usually employed is from 0.28 to 0.39 centigr., and can be repeated frequently, as it is very rapidly eliminated, which is well shown by the characteristic odor of the patient's breath, a few moments after its use. It is quite as useful in children as in adults, and is a remarkable adjuvant to the use of alcohol.

THE LIGATURE TIGHTENER—Mr John Clay *Lancet*, June 9, 1883.—This instrument is devised for application to a stricture so situated that the fingers cannot be efficiently used to tighten the ligature, or of being applied to a morbid growth, the size of which requires greater constrictive power than can be produced with the fingers alone. The ends of the ligature are fastened to the stem of the instrument, which is then worked as an ordinary wire-rope ecraseur.

ELECTION OF PROF RICHET TO THE FRENCH ACADEMY OF SCIENCES—The French medical press is congratulating the profession on the election of Prof Richet to the Academy of Sciences in the place of Ledillot in the Section of Medicine and

Surgery It seems that Brown-Sequard was his principal competitor, and the election of Richet silences two objections which were urged, viz that neither medicine or surgery can be classed among the sciences, and that the physician exercises a lucrative profession, and is not a disinterested high priest of science. In the light of development and evolution our catalogue of the fixed sciences has become very small, and happily other professions, such as that of the engineer, the chemist, etc., have been lucrative in themselves.

NEW JOURNALS

THE *American Psychological Journal* is issued quarterly by the National Association for the Protection of the Insane and the Prevention of Insanity. Joseph Parish, M D, of Burlington, New Jersey, is the editor.

THE ELECTRIC LIGHT FOR MICROSCOPIC WORK.—Dr Henri Van Heurck, in the *Journal de Micrographie* for May, 1883, gives a very interesting account of the utilization of the electric light for illuminating the microscope and for use in microphotographing. In illuminating the field, the delicate striæ of the amphipleura and the nineteenth group of Nober's test were defined with perfect distinctness. Professor Abbe explains this as due, 1st, to the great whiteness of the light, by the mensurations made by Prof Abbe in different monochromatic illuminators, it has been demonstrated that the separating power of an objective of a given aperture increases in the same proportion that the wave length of the light employed diminishes, it results, therefore, that the electric light will show delicate details more readily than the yellow light of gas or of lamps. 2d The specific intensity of the electric light being much greater than that of other artificial lights, a sufficient illumination is obtained by a pencil of light that is much smaller than can be obtained by any other means.

These minute electric lamps can be attached to the microscope in three ways 1, attached above the objective by a collar which permits rotation upon an articulated arm for illuminating opaque objects, 2, placed on the substage so as to be pushed laterally, when required, and give oblique illuminations, 3, with greater illuminating power and attached to an articulating arm in place of the mirror, to be used in polarization and photomicrography. The microscope is placed upon a metal plate, and is provided with a lobinet which diminishes or increases the force of the electric current, and a commutator in three directions allows the current to pass at will to any one of the three lamps.

NEW DRUGS

KAIRINE—This comes to us from Vienna, where last year attempts were made to find a substitute for quinine, resulting in the synthetic manufacture of chinoline out of aniline, nitro-benzol, glycerine and sulphuric acid, which had anti-febrile properties. Other experiments gave us from chinoline a preparation technically called methoxychinolinetetrahydride, to which the name of kairine has been given. It is

an oil that unites with hydrochloric acid. One striking effect is shown in coloring the urine of the person taking it brown or olive green, and more rarely grass-green. The urine usually contained bacteria in considerable quantity. Prof Ludwig gave this account at a recent meeting of the Royal Medical Society of Vienna, and Prof Drasche gave his experience with it. In doses of $\frac{1}{2}$ grain every two hours up to three grains in the twenty-four, a considerable fall of temperature took place, accompanied by shivering and grave symptoms of collapse. He afterwards gave it in 0.2 grain doses until 2 grains had been given in twenty-four hours. The dose of 0.3 grains caused a fall of $5^{\circ} 8\frac{1}{2}^{\circ}$ F in a case of pneumonia, and in another a dose of 0.2 grains reduced the temperature $7^{\circ} 8^{\circ}$ F. Doses of 0.3 grain in a severe case of typhoid fever gave rise to rigors, collapse, and feebleness of cardiac action. He considers that kairine is superior to all other drugs as a promptly-acting anti-pyretic, and that it has a great future before it.—*Medical Press and Circular*

NEW INVENTIONS

AN AUTOMATIC TONGUE-DEPRESSOR—Dr Alexander Ferguson gives a wood cut and description of this instrument in the *British Medical Journal*, which, without the cut, may be described as a blade which applies to the tongue, and is so constructed on a sliding principle, as to suit it to any size of tongue—that is, it can be lengthened or shortened at will. The tongue-plate is provided by an arm at right angles to it, when open, which has a ratchet fitting into a tube attached to a chin plate and caught there by a tooth. The chin plate is horseshoe in shape and lined with morocco leather, being so constructed as to comfortably adapt itself to the long ridges of the lower jaw. The inventor condemns the chin pad of ordinary tongue-depressors, as, by being applied to the soft parts, they serve to press the tongue upwards. Both blades are jointed, and closing, make the instrument so compact as to be carried in the vest pocket.

EDITORIAL

ADVERTISEMENTS—Under the head of correspondence will be found a brief letter from Dr G R Henry, of Burlington, Iowa, making vigorous protest against the insertion of advertisements in the advertising columns of the *JOURNAL* concerning "ready made prescriptions," etc. If our correspondent had examined more carefully the advertisement of Parke, Davis & Co, on our last page, he would have seen that it contained no reference to *prescriptions* of any kind. While the well known firm to which our correspondent refers, has yielded to the pernicious practice, it present almost universal among drug manufacturers, of putting up and selling "ready made prescriptions" or formula, they are entitled to the credit of abstaining from the still more objectionable practice of resorting to *trade names*, or other means of holding exclusive rights.

medicines of any kind The rule adopted by the Board of Trustees, and sanctioned by the National Association, concerning advertisements in this JOURNAL is as follows "Advertisements may be admitted from medical educational institutions and hospitals open for clinical instruction, from book publishers, pharmacutists, instrument makers, and all other legitimate business interests But all advertisements of *proprietary, trade-mark, copyrighted, or patented* medicines, should be excluded Neither should any advertisement be admitted with one or more names of members of the profession as endorsers, having their *official titles or positions* attached "

If we violate this rule, it will be by mistake or inadvertence

EPIDEMIC CHOLERA—For two or three years the prevalence of this disease has been steadily increasing in India, and during the present season is prevailing, in a severe form, in Egypt

This event has created no little alarm in the countries of Western Europe, and their governments are taking active quarantine and other sanitary precautions for preventing its introduction into their respective countries It is probable that the value or efficacy of such measures in preventing the spread of this pestilence from one country to another will receive a fairer test than ever before

The popular doctrine, both in and out of the profession, is that the disease is caused by some species of organic germ, capable of being transported in various ways from one place to another, more especially along the lines of travel and commerce There are many facts, however, connected with the history of past epidemics of the disease, that are not readily explainable upon such a theory And it is not quite certain that special meteorological conditions, existing coincidentally with bad local sanitary states, have not more influence over the question of its prevalence, either in Western Europe or in our own country, than that of the importation of its supposed cause If its increase in India and present prevalence in Egypt is really the beginning of one of those wide-spreading epidemics, such as occurred from 1848 to 1854, it will not be likely to reach Western Europe until late the present season, or early the next summer, and this country the summer following But in neither this nor any other civilized country can the governmental authorities give too great an amount of attention to the removal of every source of local contamination of air, water, and soil

NEW SUBSCRIBERS—To save answering the same question many times, it is proper to state that a sufficient number of extra copies of this journal have been printed to supply all new subscribers, or additional members who may desire it, with the numbers from the beginning, and we shall be careful to keep enough of each issue on hand to furnish complete files for, at least, six months to come

DISCUSSIONS BEFORE THE SECTIONS—In answer to several inquiries, it is proper to state, that no reports

of the remarks made by members in discussing the papers read in the several Sections of the Association, have been made in the majority of instances

In such, of course, none can be published in connection with the publication of the papers In other instances, however, reports of the remarks made have been preserved and revised by the speakers In all such cases we shall endeavor to have the reported comments appear with the papers to which they relate

CORRESPONDENCE

CHICAGO LETTER.

[FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION]

Chicago, it seems, is about to be blest with several new hospitals The one most recently mentioned has been started by several Presbyterian gentlemen At present there is but one Protestant general hospital in the city St Luke's, which is under the care of the Episcopalians A charter has been obtained for the Presbyterian Hospital by Tuthill King, Daniel K Pearsons, William Blair, Robert C Hamill, John H Barrows, C M Henderson, John B Drake, Nathan Corwith, Samuel M Moore, Henry M Lyman, James M Horton, Willis G Craig, Cyrus H McCormick, Jacob Beidler and J P Ross The hospital is promised at no distant day, as many of our wealthy citizens insure its financial success It will not be denominational further than being under Presbyterian management

Rush Medical College is about to build a hospital of its own on ground in close proximity to the college buildings The hospital will be built so that it can be enlarged in the future The college is undoubtedly led to make this move because of the many hindrances thrown in the way of clinical teaching in the County Hospital, by the County Commissioners During the last two years or more, the students have not been allowed to enter the wards, and go to the bedside for instruction, but have been required to receive all clinical instruction in the amphitheater More recently the Board of Medical Attendants were all discharged, and on the new Board only one member of the faculty of each of the colleges was appointed

The New St Luke's Hospital is fast nearing completion, and will be ready for occupancy in the course of a few months This hospital has long needed enlargement Its wards are always full to overflowing The new building is expected to be one of the best planned hospitals in the country They still have as much more ground as is now used, on which they can build in the future This hospital will furnish much additional clinical material for the students of the Chicago Medical College The hospital is only a few blocks from the college, and three of its staff are professors in that institution They have been giving several clinics each week during the last year, in the old hospital The Chicago Medical College is now peculiarly well supplied with clinical material, for in addition to St Luke's Hospital, it still has the

use of the material in Mercy Hospital, which is situated on the same grounds with the college. Mercy Hospital accommodates between two and three hundred patients. Some four or five blocks off there is also the Michael Reese Hospital, in which occasional private clinics are held.

Our summer hospital, the floating hospital for babies, has entered on its annual era of usefulness. No charity is more worthy of commendation, by means of it the poor suffering children and their mothers, from our closely packed, poorly ventilated and drained tenement houses, are given a breath of pure fresh lake air. For a number of years this institution has done much for the poor children of our city. We are glad to say that an additional institution of the same character has just been opened upon the lake front, in the South division of the city. A breakwater running along the shore at the foot of 25th street has been covered by an awning, and a house has been built at one end for the storage of such articles as are necessary for the hospital, cots and swings are furnished for the comfort and accommodation of the little ones. Nurses and physicians are on hand each day from 6 A M to 8 P M.

The recently issued announcement of the Chicago Medical College contains the outline of a four year course which this faculty recommends. For many years they have offered only a graded three year's course. The need of an additional year is felt by all conscientious students, and this last provision will be welcomed by them. An honor has been conferred upon one of the best known and most respected members of the faculty of this college of which all his friends rejoice to learn. The North-Western University at its commencement in June, conferred upon Dr Hosmer A. Johnson, the degree of Doctor of Laws.

Through the munificence of some of its friends, the Northwestern University has been cleared of all indebtedness, leaving the institution to enjoy the full benefit of the income from its magnificent property, which now amounts to over a million dollars. In 1881, Dr John Evans, formerly a citizen of Chicago, but during recent years a resident of Denver, Colorado, offered the university, in addition to magnificent endowments that he had given it in its early history, \$25,000 if they would raise \$75,000 more before the university commencement of 1882, and also \$25,000 towards a second \$100,000 to be raised before the same time in 1883. The \$200,000 thus to be raised would clear the institution of debt. Many friends of the institution united to raise the required amount. Mr William Deering, however, by his great generosity contributed a considerable portion of it, giving \$25,000 towards the first hundred and \$50,000 towards the second hundred thousand.

The recent lard investigation in Chicago has attracted considerable interest on the part of the medical profession of the city, as several of its members were called upon for expert testimony. Just before Mr Peter McGeoch's recent failure he refused to accept of Messrs Fowler Brothers 500,000 tierces of lard, alleging that they were not pure as they should be, but were adulterated with cotton-seed oil and

tallow. The Chicago Board of Trade undertook an investigation of the matter. Professor Walter S. Haines, Dr I. N. Danforth, Dr W. T. Belfield, Dr R. Tilley and Dr P. S. Hays were variously employed as experts. In the course of his investigations Dr Belfield found that by allowing the fats to crystallize out of an ethereal solution, lard and tallow could be readily distinguished from one another. The former produce plate-like crystals, rhomboidal in shape and bevelled at the ends, the latter are plumelike and curved as the italic *f*. Among the many experts called in the case by both sides were Professors Remsen, Doremus, Witthaus, Sharpless and Habersham. For the present the investigation is closed, but will be reopened in August, when it is understood further expert testimony will be procured.

The State Microscopical Society is making preparations to receive the members of the American Society of Microscopists who meet here in August. A large meeting is expected, as many, undoubtedly, who intend to attend the meeting of the American Association for the Advancement of Sciences, which convenes a little later in St. Paul, will start early enough to attend the Society of Microscopists here. A reception will be tendered the society at the Calumet Club on August 9. A fine display of microscopical objects, it is hoped, will add to the interest and entertainment of the evening.

In this letter I shall not have an opportunity to speak of the work being done by our medical and other scientific societies, although meetings of interest are still being regularly held by them.

BOSTON LETTER

[FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION]

With the annual meeting of the Massachusetts Medical Society, which usually occurs early in the month of June, each year, all the active society work in medical matters in Boston may be said to end. That event is the grand culmination of the season, and at its close the profession draws a long breath and prepares to enjoy a few weeks of relaxation from the really arduous duties of the previous nine months. With each summer a constantly increasing number of physicians adopt the vacation system, now so generally indulged by the rest of suffering, sweltering humanity, and the doctor is already beginning to look forward to the time when he may close his town residence entirely and spend in uninterrupted holiday of two or three months in some accessible suburban resort, instead of being restricted to occasional outings of two or three days, or at most a fortnight, as is now generally the case. Our city is most fortunate in possessing a great number of picturesque and interesting localities in its immediate vicinity, and the many railways and other means of communication render it quite easy to reach almost any desirable point within a radius of fifty miles, at very moderate expense of time and money. A very considerable proportion of our winter population is to be found permanently domiciled in the "summer residences" of

number by far the houses of the original inhabitants of the town. With each year there is a steady increase in the number of these rural abodes, until in some places they seem like small cities by themselves. It has already come to pass that much of the winter society in Boston is so conveniently disposed at the various "shores" and "hills" that the feeling of strangeness is never known, as old friends and neighbors are always within an easy drive, or possibly reside within sight from the window. Several physicians are so fortunately situated as to be able to fly away with their friends, and spend the entire season in these delightful surroundings, thus obtaining much needed recreation, and giving to their winter patrons the feeling of security which their presence affords, in localities where good physicians are not always easily accessible, and where the need of their services may at any time become speedily urgent.

During the present week the chemical department of Harvard Medical College is being transferred to its quarters in the newly-erected building, to which it was hoped and expected that the entire collegiate functions would ere this time have been transposed. A most unfortunate conflagration, which occurred early in June, in the main wing of the structure just as it was being finished, wrought such extensive damage both to the inside and out of the edifice, that it now seems highly probable that many of the laboratories and special departments will unavoidably be retained in the inconvenient and unsightly old building where they have for some years struggled and languished. It has for some time been an ardent hope among the friends of the college that a new building, and modern conveniences for work, would supply the necessary stimulus to enable the college to make necessary and radical changes in many ways, and to raise itself in its medical department to the position which its importance as a great university, its position as the leading New England educational institution, imperatively demands. Whether these changes will follow the magnificent gift of a noble building we cannot know for one year longer, but if the prolonged delay is at length followed by results so desirable no one will murmur.

Apropos, it is interesting to observe how a finished "fire-proof" building may be so completely ruined by a conflagration originating in one portion that months of labor are required to render any portion of the structure habitable. The question of fire-proof construction would really seem still as far from a positive solution as that of ventilation, or acoustic qualities in architecture, or of antisepsis in surgery. To this last, however, it still offers much similarity, in that its accidents are best treated by the "spray."

From our safe hermitage in Boston, where we sit down and rise up in safety, surrounded and defended by filth and off-scourings of every State around us, by quacks belonging to our own members, and by every sort of medical pretenders, with diplomas or without, who have been driven from the peaceful pursuit of their nefarious occupation in other places, and have come to Massachusetts, where they find a charitable reception and a secure asylum for the further prosecution of their peculiar practices, we cast our

eyes complacently across the border to our sister city of New York, and behold with equanimity the struggle there being enacted in regard to the Code question. Fortunately, no such cloud looms in our own professional horizon, no such agitation disturbs the apathetic sluggishness of our medical repose, in the words of the Queen's speech "our relations with all surrounding powers continue to be amicable."

When we reflect that these include all the men, women and things in any way connected with the so-called "practice of medicine," and that eclectics, clairvoyants, mediums, seers, bone setters, abortionists and the rest are gathered into one happy family and nurtured under one and the same provision of law, in the providence of the Commonwealth of Massachusetts, it becomes at once evident that this State and this city are the nearest approximation to elysium yet demonstrated to a waiting and expectant race.

The recent closing of the *case celebre*, the "Tewksbury Investigation," has afforded a sensation of relief to a weary people who had begun to think the end was as far away as a verdict in chancery. Of all the State business ever transacted within the commonwealth, it is doubtful if any one action ever interested and concerned every calling, profession, trade, or occupation, and all ages, sexes, relations and previous conditions of servitude to the extent which this notorious expose has done. The result has not been yet publicly announced, but two reports have been presented, a minority and a majority report. The latter is an able and vigorous document, and treats the entire subject in the most clear and candid manner. It directly accuses the Governor, Gen B F Butler, of making charges against the institution which have no foundation in fact, and spares no words in denunciation of the manner in which the chief executive magistrate of the State has conducted the case as prosecuting officer. It is doubtful if any incumbent of the gubernatorial chair has ever received such a castigation at the hands of a legislative committee, and it is sincerely to be hoped that no one has ever been proved so worthy of censure. The report is very long, and recites every grievance mentioned by the prosecution, most of which do not directly interest the medical profession, but its closing paragraphs are so concise, so clear, and so comprehensive in relation to the general sanitary and hygienic condition of the State Almshouse, that every physician must feel an interest in its perusal.

The treatment accorded by his Excellency to the professors and teachers of Harvard University has also been deemed worthy of rebuke. What, if any result follows this scandalous investigation is still a matter of conjecture, but the moral atmosphere and the daily press have already become somewhat purer since the testimony in the case was concluded. Appended is a verbatim copy of the final clauses of this admirable report, as it was presented to the legislature by the joint committee from the two houses.

"We have visited Tewksbury—many of us several times—and examined the institution in all its parts. We have seen and tasted the food of its inmates, and had before us the men who cooked it and served it

for many years. We have had before us one of the late trustees, the superintendent, the clerk, the physician, matrons, the nurses and attendants. We have examined the official reports of the State Board of health, lunacy and charity, which by agreement are made part of the case. Further, we have had before us Fr Giguault, of Lowell, the Catholic priest, whose presence is such a benediction at the almshouse, also the official report of Mrs Clara T Leonard, one of the efficient members of the State Board, also Dr George A Tucker, the eminent expert from Australia, and Dr Charles F Folsom. And, after hearing all the evidence in the protracted hearing, we declare the present condition of the State Almshouse at Tewksbury to be good, and with one single exception,

ENTIRELY WORTHY THE STATE

That one exception is that the appropriations have been too small. The evidence is cumulative that there should be more and better attendants and better food for the sick and infirm, more amusements and recreation for the hopeless insane, and other things as recommended by Mrs Leonard in her official report.

We pronounce the main charges of His Excellency the Governor groundless and cruel. The question of infant mortality was an old one, well settled, as everybody knew. The delivery of dead bodies under the law was under the control of the trustees and superintendent, and any irregularity should have been remedied by them without publicity, if proof thereof had been furnished, and the people of this proud commonwealth would have been saved from the shame and humiliation so recklessly and needlessly brought upon them. Surely the truth should have been ascertained before making such awful charges.

Our order was to investigate the other institutions, but we have heard no cause of complaint, and have had no time to devote to them. We made the ordinary tour of inspection, and found them in good condition.

We commend to the Legislature and to the people all our public charitable institutions as still worthy this ancient commonwealth, although, in the language of one of his Excellency's distinguished predecessors, they are constantly requiring changes to meet the recurring exigencies and the demands of a progressive philanthropy.

Your committee desires to place upon the record their strong disapprobation of some things said and done by the Governor during the course of this hearing. We pass by the insults to the committee and to the chairman who presided at this hearing by invitation of the regular chairman, with consent of the committee, also the reference in the argument to "clearing out this State House" by his veteran comrades, and consider graver things. His excellency announced, on the first evening of the hearing, that he had not come into the case.

WITH A BLACKING BRUSH

But when, in cross examination of a young lady witness [p 1839], in order to ascertain whether, in a certain campaign, a distinguished citizen of this State turned over night at the State Almshouse, he said 'I don't know what you knew by sleeping

with him'', when he spoke of a matron who had been a witness as "that little chit, who could do no good among old men except to excite their passions'', when he insinuated that the father of Charlotte Anderson's child was the aged superintendent of the almshouse, when he tried in vain to make Thomas Kelliher, one of his witnesses, admit that he took money and suffered imprisonment for being the father of a bastard child on solicitation of the assistant superintendent, when he suggested that another respectable lady witness employed at Tewksbury belonged to "the harem'', when he spoke of the State almshouse as a "hell upon earth'', and the home for discharged females at Dedham as a "den'', when he spoke of the eminent physicians who controverted Drwell's testimony as the "refuse" and again as the "emptyings" of Harvard medical school, and again as "rascals" and "runts," your committee thought the blacking brush had been brought into requisition. When he, in his argument, related his own disgusting description of the operation of craniotomy, when he brandished what he called a woman's skin and pointed to the audience the nipple of the woman, when to defend the New York witness Eva Bowen he averred that, under God, her seduction and fall are due to the school system of Massachusetts, when we see him flourish a piece of human skin which had not been put into the case, with an alleged crucifix tattooed upon it, when he alluded to old and young men whose raged passions are to be excited by wearing slippers made from a woman's breast, your committee blushed for the commonwealth, and turned away in amazement. But worse than these was his portentous reference to the French revolution. Can it be possible that the people of this commonwealth are slumbering upon such a volcano as burst upon the people of France in 1789, whose fires are to be kindled because four reckless medical students have caused to be tinned for their own purposes a few pieces of human skin? Is this what his Excellency means when he says we must see that the wheel don't go round once again?

We have examined the 3,000 proofs of the testimony in this case with solicitude to be just, just to the management of the Tewksbury almshouse, just to His Excellency the Governor, who made the charges and conducted the prosecution, and, above all, just to the commonwealth whose servants we are.

OSLOW GILMORE,
EDWARD P. LORING,
Senate

GEORGE E. LEARNED,
ROGER WOLCOTT,
GEORGE D. CHAMBERLAIN,
WILLIAM L. CHESTER,
JAMES K. PUTNEY
House

BURINGTON, IOWA, July 23, 1883

Dear Doctor—I have received your first number, and am delighted with it as a journal, but I am not so pleased with your advertisements. Pirke, Davis & Co have bored the physicians of the North-west sufficiently with their ready made prescriptions for

fact, they have taken the place of Ayer's Pectoral and Humboldt's Buchu, and are patronized by all the quacks and all the patent medicine men in this country. Soon I presume you will advertise Warner's safe cure for kidney trouble. Now, I protest right here against the organ of the American Medical Association being the means of disseminating any such advertisements. I ask a place for this in your correspondent's column, and see if I am not indorsed by nine-tenths of the physicians in the land.

Yours truly, G. R. HENRY, M. D.

CHOLERA

BY H. RAYMOND ROGERS, M. D., DUNKIRK, N. Y.

Words of warning come from the East, of the approach of cholera in its worst form. To the medical profession, therefore, to be forewarned should be to be forearmed. The duty of the hour is to look well to our conceptions of the disease—its cause, its pathology and its treatment. We have to-day only the experience of the past to guide us. This, confessedly, is not assuring, since all theories and all forms of treatment have been fruitful only of disastrous results. In fact, no treatment at all has given nearly as good results as the most scientific treatment. The average mortality has ever been 50 per cent of the persons attacked.

Under these circumstances only one course is open to us, *à savoir*, to boldly discard all old theories, and every system of practice, and improve the opportunity to study each case with earnestness, to the end that we may find a philosophy that will take into account all its phenomena, and constitute an exact science of the disease. Briefly, the demand is for a new foundation.

In response to this imperative demand I submit a theory of the disease which, in practice, has afforded good results, *viz* 1. That cholera is a true neurosis, 2. that it consists essentially in a disturbance of the general innervation, 3. that its leading symptom is a true hæmorrhage, 4. that its source is to be sought for in meteorological conditions.

That it is a true neurosis is abundantly demonstrated. The fact that a person in full health and strength may be attacked and die in the space of twenty or thirty minutes, effectually disposes of every theory of poison, and shows conclusively that in these rapidly fatal cases the force of the disease is expended upon the brain and nervous system. No evidence of the action, or existence of poison, has yet been discovered, even after many thousands of autopsies conducted with the most rigorous exactness.

The initial sense of malaise, the regurgitative vomiting, the cramps, and the unlocking of the walls of the blood-vessels, permitting the escape of the serum into the stomach and bowels,—these all indicate a disturbed innervation.

That the leading symptom—the rice-water discharges—is a true hæmorrhage is demonstrated by the fact that these are constituted of the serous element of the blood. The rapid escape of a single element of the blood is disastrous in the same manner as the

escape of the full blood itself in abortion and other forms of active hæmorrhage.

To discuss its source and mode of dissemination now, would not be wise or profitable, as this can be done more intelligently after an epidemic. We know that this disease laughs at a *cordon sanitaire*, or quarantine.

The characteristic symptoms, and the pathological conditions, unerringly determine the mode of treatment. If we would look upon cholera-hæmorrhage as subject to the same general principles of treatment as other hæmorrhages are, the question of treatment would become a simple one.

The horizontal position, or with the body more or less inclined, with the head downward—according to the gravity of the case—and persistently continued until convalescence is assured, is the sheet-anchor in the treatment of this disease.

When we consider that the physiological action of the mucous membrane is reversed in this disease,—that exosmosis takes the place of endosmosis, the futility of relying upon remedies internally administered becomes apparent. The medication *par excellence*, is morphia hypodermically applied, or sprinkled upon a blistered surface. This remedy changes the perturbed condition of the nervous system, and effectually, and quickly, closes up the diminutive avenues through which the life current ebbs away. For the mouth, but little is required save pounded ice, or cool water, frequently repeated.

Much can be done in staying the progress of this scourge, when epidemic, by informing the public through the columns of the press as to what should be done *immediately*, when diarrhœa sets in, *viz* that a mild opiate should be taken, and more or less frequently repeated, and the horizontal position maintained for a number of hours. This course would prevent a fatal termination in a majority of the attacks.

The larger proportion of the cases which occur during an epidemic are due *alone* to the effects of fear, and a knowledge of the fact that these simple precautions will rob the disease of half its dangers, will go far to remove such fear, and thus secure a degree of exemption from its ravages.¹

¹ This subject is more fully treated by the writer in the Transactions of the American Medical Association for 1876.

REVIEWS

THE RELATION OF MICRO ORGANISMS TO DISEASE
By WM. T. BELFIELD, M. D., Chicago. W. T. Keener, 1883.

Such wide publicity has already been given to this admirable work of Dr. Belfield throughout both the professional and non-professional press, that it is almost needless to remark it is a reprint of the Cartwright lectures, recently delivered by him in New York, before the Alumni Association of the College of Physicians and Surgeons. That he fully appreciated the compliment bestowed upon him by the invitation to deliver these lectures, is plainly evinced by the amount of care which he has taken in their

preparation, for they bear the imprint of most diligent research. The value of his publication is greatly enhanced by the addition of numerous excellent cuts of the various forms of bacteria, copied for the most part from photograms by Koch.

The scope of the work may be estimated by reference to the classification which the author has made of the evidence upon which the germ theory rests. He discusses first the evidence with regard to anthrax, whose bacterial origin has been affirmed by inoculation experiments in the hands of several competent observers. Second, the testimony regarding tuberculosis, which has been adduced by one competent observer. Third, those diseases which are characterized by the presence of bacteria in the tissues, but which have not been induced by inoculation with isolated bacteria. Fourth, those diseases, after death from which bacteria have been discovered in the tissues, and fifth, those diseases in which the presence of bacteria has been asserted.

The entire subject is treated from the standpoint of one who has closely followed the development of an intricate problem, and has endeavored to deduce therefrom the logical results, and thus accurately define the present status of an important question.

BOOKS AND EXCHANGES RECEIVED.

The *Cincinnati Lancet and Clinic*, June 30 and July 21, 1883

The *Sanitarian*, New York, July 19, 1883

Transactions of the Medical Society of the State of West Virginia, Sixteenth Annual Session, 1883

How to Conduct Inquests and Post-Mortems, and how to Give Official and Expert Testimony before Courts of Law in Cases of Homicide. By C. H. Von Klein, M. D., Hamilton, Ohio

MEDICAL SOCIETY ITEMS

MEETINGS OF SOCIETIES, ETC

The British Medical Association holds its fifty-first annual meeting at Liverpool, England, on July 31 to August 4, and the three main physical requirements which the editor of the *British Medical Journal* sets forth as necessary for a place of meeting, commend themselves with full force to the American Medical Association. They are (1) facilities of success, (2) ample hotel and other accommodation, and (3) local attractions. The work in the sections has been arranged for the most part at least seven weeks before the meeting, and is full and comprehensive, and among the entertainments for relaxation is the annual banquet, which is conducted through subscriptions by the members. The Association has thirty branches, with a membership of 7,416.

The Medical Society of Virginia will hold its Fourteenth Annual Session at Rockbridge, Alum Springs, Va., September 4, 5 and 6. It is expected to be a session of more than ordinary interest.

Several visitors from other States are expected to be in attendance who have promised papers. Dr. Wm. D. Cooper, of Morrisville, Va., is President, Dr. Hugh M. Taylor, of Richmond, Va., Corresponding Secretary and Dr. Landon B. Edwards, of Richmond, Va., Recording Secretary, to either of whom letters of inquiry or communications intended for the society may be sent.

SOCIETY NOTICES.

THE sixteenth annual session of the American Ophthalmological and Otological Association was held at Hotel Katerskill, Catskill Mountains, July 18.

AN Iowa State Veterinary Society was organized at Burlington, July 17.

THE thirteenth annual meeting of the Wisconsin Dental Society began July 17, at Milwaukee.

MISCELLANEOUS

RECENT LAW TO REGULATE MEDICAL MATTERS IN MICHIGAN

ACT NO. 167, LAWS OF 1883

An Act to Promote Public Health

SECTION 1. *The People of the State of Michigan enact*, That from and after this act shall take effect, it shall not be lawful for any person to practice medicine or surgery, or any branch thereof (except dentistry) in this State, without having the qualifications required in the provisions of this act, and without having first registered in the office of the county clerk as provided in this act.

SEC. 2. The necessary qualifications to practice medicine in this State shall be

First, That every person who shall have actually practiced medicine continuously for at least five years in this State, and who is so practicing when this act shall take effect, shall be deemed qualified to practice medicine in this State, after having registered in the office of the county clerk as provided by this act.

Second, Every graduate of any legally authorized medical college in this State, or in any one of the United States, or any other country, shall be deemed qualified to practice medicine and surgery in all its departments, after having registered as provided in this act. *Provided*, That the provisions of this act shall not be construed so as to prohibit any student or under graduate from practicing with and under the instruction of any person legally qualified to practice medicine and surgery under and by the provisions of this act. *Provided*, That every person qualified to practice medicine and surgery under the provisions of this act, shall, within three months after this act shall take effect, file with the county clerk of the county wherein he has been engaged in practice or in which he intends to practice, a statement sworn to before any officer authorized to administer oaths in said

county, setting forth, first, (if he is actually engaged in practice in said county), the length of time he has been engaged in such continuous practice, and if a graduate of any medical college, the name of the same and where located, when he graduated, and the length of time he attended the same also the school of medicine to which he belongs. And if he is a student or under graduate, the length of time he has been engaged in the study of medicine, and where, and if he has attended a medical college, the name of the same, and where located, and the length of time so attended and when, also the name and residence of the physician under whose instruction he is practicing or intends to practice. It shall be the duty of the county clerk of each county in this State to record in a book provided by the county, the affidavit (or sworn statement) of every physician practicing in said county. For recording each statement the county clerk shall receive fifty cents, to be paid by the person filing the same.

SEC 3 It shall be the duty of the supervisor, at the time of making the annual assessment in each year, to make out a list of all the physicians and each student practicing under the instructions of a preceptor residing within his township, village, ward or city, with the name, age, sex, and color of each, and the length of time each has been engaged in practice, and if a graduate of a regularly established and reputable college, the name of the college and the date of graduation. Such list shall be returned by the supervisor to the township, village or city clerk, and by the clerk recorded in the book in which are kept the records of the local board of health.

SEC 4 No person who practices medicine, surgery, or midwifery in any of their branches (except dentistry), shall be able in any of the courts of this State to collect pay for professional services rendered subsequent to the time that this act shall take effect, unless he was, at the time such professional services were rendered, duly qualified and registered as a medical practitioner according to the several provisions of this act.

SEC 5 The supervisor, township, village or city clerk is hereby authorized to administer the oaths required by this act.

SEC 6 Whoever advertises or holds himself out to the public as authorized to practice medicine or surgery in this State, when in fact he is not so authorized under the provisions of this act, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be liable to a fine of not less than five dollars nor more than fifty dollars for each offense.

SEC 7 It shall be the duty of the supervisor and health officer of the local board of health in each township, village, ward or city to enforce this act.

Approved June 6, 1883

A DISPUTE has arisen between the Louisiana State Board of Health and Dr John H Rauch, of the Illinois State Board of Health, and the Sanitary Council of the Mississippi Valley. The first-named Board asked the Governor of Louisiana to request the Governor of Illinois to request Dr Rauch to attend to the affairs of his own State, and not to meddle

with those of Louisiana. The difficulty arose from the recommendations of the Sanitary Council in regard to quarantine against yellow fever.

A RATHER odd suit has been brought in New York by a negro hotel waiter, who allowed eight ounces of his blood to be drawn and transfused into the arm of a white gentleman. The gentleman claims to have paid him and also paid for his services in his hotel bill, but still suit is brought against him for \$250.

AN International Board of Health, with headquarters at Geneva or Lugano, is being discussed by several of the European powers.

CHOLERA has appeared among the British soldiers in Egypt at Cairo, Suez, and other points.

COLLEGE ITEMS

To the chair of Physiology in the Westminster Hospital College, Dr Heneage Gibbes has been appointed. At Cambridge, England, a chair of Physiology has been created, and Dr Michael Foster has received the first appointment to it. To the chair of Anatomy in the same school, Dr Alexander Macalister, of Dublin, and to the chair of Surgery Prof Humphrey.

PROF JOHN C DALTON, the well-known teacher and author who has held the Professorship of Physiology in the College of Physicians and Surgeons, New York, for many years, has resigned the chair. Dr John G Curtis, who for several years has been the adjunct professor, will be his successor.

To the chair of Obstetrics and Diseases of Women and Children, in the University of Louisville, recently made vacant by the resignation of Professor Theophilus Parvin, Dr John A Ochterlony has been elected.

THE chair of Diseases of the Mind and Nervous System, in the New York Post-Graduate College, has been given to Dr Chas L Dana, and Dr J L Corning has been made lecturer on the same subject.

NECROLOGY

WARDER, JOHN A, of North Bend, Ohio, died July 14, 1883, aged 72.

LEFORGEE, WALKER L, died at Decatur, Ill, July 11, 1883, born in Marion Co, Ill. Aged 23 years.

THE Editor of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call the attention of the profession to. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 65 Randolph St, Chicago, Ill.

WM. R. WARNER & CO

(FOUNDED 1856)

We have had occasion to refer in a previous number of our journal to the firm of Wm R Warner & Co of Philadelphia. Our acquaintance with this firm, and our own personal knowledge of their method of the production of their remedies justify us in giving to them an extended notice. The value to the physician of the pharmaceutical products of a known standard and value cannot be overestimated. We have so many tinctures, extracts, both solid and fluid, pills, granules, and preparations of every description, that are either wanting in strength or care of preparation or in official value that the results obtained are disappointing to the practitioner in almost every case. And reputable houses give it to them else and their patrons to see that all their products have a trade mark which in no case will cause annoyance or failure from any of these causes. Wm R Warner & Co have expended large sums in procuring and testing the value of new remedial agents they have the finest and best equipped laboratory in the country and were the first to introduce many of the recent preparations which have become of so much value, not one of which has failed to be of use. We have been using their different pills with great success and heartily recommend them to the profession. The manufacturer of chemicals and pharmaceutically in these days must make the most strenuous efforts in order to be in the advance which is constantly being made in the discovery of new and new methods of preparation and their introduction under special and careful instructions to practitioners.—*New York Medical and Surgical Journal*

WARNER'S PILLS—We beg to call the attention of our subscribers to the Messrs Warner's advertisement. Their pills are thoroughly reliable and being carefully sugar coated, are entirely tasteless. The use of sugar as a coating for pills has been objected to. It has been stated by some that in sugar coated pills the drugs become dry and hard and soon lose their efficiency. This we can state for a positive fact not to be the case having lately used and examined some of Warner's pills which had been kept in stock for over four years, and in which on section the mass was found to be quite soft. From our own experience we have no hesitation in recommending others to use these preparations as they are sure to be reliable and to give satisfaction.—*Canadian Medical and Surgical Journal*

The solubility of COATED PILLS is a matter of very great importance to the physician who may desire to prescribe the use of quinine and other medicines offensive to the taste and smell. Various experiments from different sources have demonstrated the fact that the sugar coated pills prepared by Wm R Warner & Co are the most soluble and reliable in this respect. Those containing quinine are made of good material and full strength, as demonstrated by chemical analyses. These facts were established by Leroy M Yale, M D of New York and A B Lyon Analytical Chemist, Detroit and others. And the well known reputation of the house is a sufficient guarantee.—*Boston Medical Record*

WARNER'S SUGAR COATED PILLS—It is of some importance that medicines should be administered in as small a compass and in a palatable form as possible. We therefore hail with pleasure any improvement that is made in this department of pharmacy. To some of the pills we have given a fair trial. They are elegantly prepared the sugar coating being an especially grateful vehicle to fastidious patients, and we have found them to answer every purpose for which they are intended. We can, moreover, recommend the phosphorus pills provided they are taken only under medical supervision. To say that they are a valuable remedy for lapse of memory, impotency, loss of nerve power, paralysis, etc may induce the public to resort to these pills without medical advice and to take more than is good for them.—*Medical Press and Circular London*

The sugar coated pills of Messrs Warner & Co which have received a prize medal at all the great international exhibitions, have received a high reputation and are now being introduced by Messrs F Newberry & Sons 37 Newgate Street London. Their Sugar Coated Phosphorus Pills have an especially high endorsement from the jurors of the International Exhibition, who attest their solubility their reliable character the perfection of their sugar coating, and their thorough composition and accurate subdivision. A special certificate is given as to their Pill of Phosphorus that the element is thoroughly diffused and subdivided, although perfectly protected from oxidation. These Phosphorus Pills are presented in numerous combinations of a useful character including a variety of the leading tonics stimulants, and sedatives, and a list of such combinations is available to subscribers.—*London Medical Record*

ROME February 1873
Having been requested to give my opinion on the action of the American sugar coated pills prepared by the firm of Warner & Co of Philadelphia U S and particularly on those containing phosphorus at the dose of 100 grain and 1/2 grain extract of nux vomica I am able to certify with entire truth that I found this remedy very useful in many cases of diseases whose nature was principally nervous and in cases of anæmia and general debility. A woman sick with ataxia felt greatly better from the continued use of phosphorus and nux vomica under the above said form. In gastralgia, in difficult digestion with wind dyspepsia, I found it to be a curative medicine. In the different forms of hysteria, and in hysterical neuroses, I also obtained excellent results with it. In general falling away and debility, and in weakening of the muscular forces, the phosphorus with the nux vomica made it a good proof, as well as in anæmia in which however I ordered, together with the pills iron under different forms. My opinion, therefore is that the said preparation as well as that of quinine under the form of sugar coated pill is a real requisition for the cure of disease, because of the good quality of the drugs employed and that it is to be wished that other medicines should be prepared in the same way which is found sure and easy in practice by reason of the exact dose, and is agreeable to the patient who generally dislikes the ordinary pharmaceutical preparations especially under a liquid or pulverized form.
CHEVALIER CASIMIR MANASSE M D
First Doctor of the Hospitals, Professor and Director of the Royal Dermo Syphilographic Clinic at Rome

ROME February 1873
The pills of phosphorus and nux vomica of the firm of Warner & Co were of undoubted utility to me. I availed myself of them using 5 times in together in several of those cases in which I used to give phosphorus, in hysteria in neuroses in dyspepsia in few cases of partial anæmia cachexia of the swamps in anæmia in debility, in decaying of the forces and in ataxic and adynamic fevers. Wherefore my opinion is that the sugar coated pills may render great service to therapeutics, not only by reason of the well dosed proportion of the drugs employed but also by reason of the exact preparation.
F. DONAKDI (Internista)

WM R WARNER & Co.—We desire to call the attention of our readers to the advertisement of this house. It is one of the most reliable house in the United States, and all the preparations which they advertise can be depended upon to be as represented. We have used their medicine in ourselves and have never been disappointed.

It is becoming more and more necessary to make remedies as little repulsive to patients as possible and therefore the elegant preparations are many of the elixirs, syrups, and sugar coated pills are becoming popular among physicians but a frequent drawback is the unavailability of the preparations of many manufacturers. This objection however we know, does not hold in regard to those of Warner & Co.—*Continental Medical Review*

We have received several specimen bottles of Sugar Coated Quinine Pills from Wm R Warner & Co and always find them exceedingly agreeable in appearance, and we have always found them to be very reliable. They do not only prove to contain the required amount of quinine but they are followed by immediate effects. This proves that they dissolve quickly in the stomach. In prescribing medicine in pill form we ordinarily allow a certain time for the pills to dissolve, and some pills require a long time. Not so with these, and they may be relied upon with entire confidence.—*American Medical Journal*

WM R WARNER & Co.—This celebrated Philadelphia firm of wholesale druggists and manufacturers, chemists received the first prize at the International Exhibition of 1876 for their sugar coated pills which were certified by the judges as being soluble, reliable and unsurpassed in the preparation of sugar coating thorough composition and accurate subdivisions. They may be relied upon for pure chemical and pharmaceutical preparation. They are specially commended for phosphorus pills.—*Canadian Journal Medical Science*

SUGAR COATED PILLS AND GRANULES—We see no preparation of this class more elegant than the one made by Wm R Warner & Co of Philadelphia. Mr Warner has long been engaged in the manufacture of pills and granules and our friends will find whatever they desire to be satisfactory in appearance but perfectly reliable.—*Continental Lancet and Observer*

Messrs Wm R WARNER & Co, of this city, are justly celebrated for the uniformity and excellence of their sugar coated pills. We have recently been trying their quinine pills thus prepared, and they are certainly as easy to swallow as efficient and a neatly prepared as I have ever seen.—*Medical and Surgical Reporter*

SUGAR COATED PILLS—The prejudice against this form of coating is being overcome by the superior preparation of Wm R Warner & Co. Quinine pills a year old show a soft and easily soluble interior on being cut open. Their pills are in every case reliable, as far as experience can prove them goes.—*Buffalo Medical and Surgical Journal*

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The next annual course of instruction in this Department (now in the fiftieth year of its existence) will commence on Monday the 22nd day of October 1883, and terminate on Saturday, the 29th day of March, 1884. The first four weeks of the term will be devoted exclusively to Clinical Medicine and Surgery at the Charity Hospital. Practical Chemistry in the Laboratory and dissections in the spacious and airy Anatomical Rooms of the University.

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COMPLETE INDEX

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No 4

ORIGINAL ARTICLES

ADDRESS OF THE CHAIRMAN OF THE SECTION OF
OBSTETRICS AND DISEASES OF WOMEN,
OF THE AMERICAN MEDICAL ASSO-
CIATION, READ JUNE, 1883

BY J. K. BARTLETT, M.D. OF MILWAUKEE

PART I

Mr. President and Gentlemen of the American Medical Association

The position with which you have honored me requires, by ordinance, that a *resumé* of the so called advances in our special department should be made the subject of this address. This rule has not been observed for the past two years, and would now, perhaps, "be better honored in the breach than in the observance," but being a law abiding subject, the writer has chosen mainly to comply with it, and will serve you an "olla podrida," containing some recent items of interest, seasoned with personal views upon other subjects, concerning which there is much difference of opinion among the profession. Seen by the light of present teachings, some of these opinions may be deemed heretical, they are certainly conservative, and perhaps it is well, amid the rush and excitement of our modern mode of life and thought, that there should be an occasional protest against the speed with which all earlier views are left far in the background, lest something of real value should be lost and forgotten.

Dr. John B. Hunter, at the close of an article published more than a year ago, said, "The triumphs of gynecology have been gained almost entirely in the field of surgery." Accepting this dictum, we shall first direct attention to some topics in Gynecological Surgery.

Two years ago my predecessor, Dr. J. R. Chadwick, when more ably discharging the duty which now devolves upon me, referring to Emmet's operation (a name which seems preferable to the long Greek derivative), stated that "it could hardly be said to have passed from the stage of novelty to that of criticism, that it was destined to be a fertile topic for several years to come, when it would be assigned to its proper sphere, and cease to excite discussion." This was truthful utterance. Our journals, native and foreign, have teemed with cases, papers and criticisms. Prolonged observation has shown that undue influence was attributed to the lesion, and experience has proved, that the relief claimed to follow the operation

has not been uniformly attained. A more definite understanding of the conditions really requiring it, and the limits to which it should be restricted, as well as a more just appreciation of its real merits, has thus been attained. As a consequence, medical opinion now indicates with tolerable clearness its permanent status and scope, even if all the conditions are yet fully determined. Dr. Emmet's early statement, "In every instance where laceration is evident, and where enlargement of the uterus still remains or where the woman suffers from neuralgia, I consider the operation necessary, notwithstanding the parts may have completely healed," led to its performance in many cases where it was unnecessary, and in which it failed to relieve. A reaction followed the first enthusiastic reception and adoption of the measure, in this country, and sharp, and sometimes unjust criticisms came from abroad.

As an illustration of the truth of the statement that reflex nervous disturbances do not depend upon this lesion, when accompanying it and may be cured while it still exists, a brief abstract of a case reported by a noted New York gynecologist, a few months since, will be presented. It occurred in a woman 39 years old, who had given birth to a child eighteen years before, and had suffered since that time from pain in the sacrum, right groin, and down the right thigh, with migraine, nausea, and vomiting at the time of menstruation, which function was unduly prolonged. She had been many years under the care of a gynecologist without benefit. A large bilateral laceration of the cervix existed, with surfaces and angles dense and cicatricial, the movement of the uterus was slightly impeded, and, in the vaginal vault, on the right, closely connected with the upper angle of the rent, was felt a flat, hard, immovable disk, pressure upon which caused pain in the groin, and down the right sciatic nerve. Preparatory to the operation, she was treated locally by hot water irrigations, applications of iodine, etc., and afterward, by the use of tampons, which produced so much disturbance that they were discontinued. Her physician then began the use of galvanism, experimentally, placing the negative pole against the induration in the vagina, and the positive over the right ovary, and the trochanteric regions alternately. A light current was at first employed, gradually increased in strength for fifteen to twenty minutes, the poles being occasionally reversed. The pain was much relieved by the first application, and the patient expressed herself as feeling easier than for weeks before. The sittings were continued six " " and the " "

To be continued.

use extended to one-half or three-quarters of an hour, the strength being gradually increased to sixteen cells, and during the week preceding menstruation a sound connected with the negative pole was introduced into the uterus for half the time. The succeeding menstruation was attended with scarcely any pain in groin or side, and with migraine only for the first day. The galvanization was continued every day during the next interval, and was followed by menstruation entirely free from pain, or migraine. The application was then made less often and two more painless periods passed. The patient attended a ball and remained until 3 o'clock A M, without any unpleasant results. "To all intents and purposes," says the narrator, "she was cured." The plastic exudation had disappeared, hastened, he thought, by the hot vaginal irrigations which had been continued. Of the influence of the galvanic current in producing this result he says nothing. For a month longer the doctor debated, "whether he should not leave well enough alone," but finally concluded to operate. He states that while he has often used the galvanic current to reduce a hyperplastic uterus, he had never before employed it as a uterine application in reflex hemicrania. To the writer such a result is not new or surprising, as for many years he has found it efficient in the same conditions associated with uterine trouble, and a year ago treated and relieved similar symptoms supposed to depend upon cervical laceration.

While there appears to be satisfactory evidence that the great majority of cervical lacerations are attended by no symptoms which can properly be attributed to them, that some even of a severe character have been found by competent observers, which had existed through several pregnancies without producing any disturbance of health, that the operation will not, with certainty, remove uterine hyperplasia, or hypertrophy, and experience has proved it unreliable for the relief of presumably dependent reflex nervous disturbances, and while it is still a mooted point whether it is warranted by the existence even of hereditary tendencies which make it possible that epithelioma may spring from the cicatricial tissue, there yet remain exceptional cases (not perhaps as frequent as Dr Munde's estimate makes them, twenty-five per cent of all) of stellate lacerations, where decided local symptoms are present, and deep bilateral rents with co-existing ectropion, hypertrophy of cervix, and consequent local symptoms, which are speedily and effectively cured by reunion of the lacerated cervix. In such, it is so marked an improvement upon cervix amputation, or the use of the actual, or potential cautery, that for the relief of these alone, the gratitude of the profession is due to the deviser of the operation, to which in honor his name is justly given.

Another operation which has been tested for some years is that of Dr Battey. Most of the indications, which have been claimed to warrant it, are now generally admitted. Some doubt still exists respecting its ultimate results when performed to check uterine hæmorrhage produced by myomata. It has appeared to be successful in interstitial and subperitoneal fib-

roids, unless the latter are so large as to prevent the operation, but its results appear more doubtful in the submucous variety, as the hæmorrhage has sometimes returned, after a check of a few months. Even with this doubt, it is indicated in much reduced patients, where enucleation could not be borne. Caution must also be observed where the tumors have been treated by ergot, as there is, at times, a central disorganization and sloughing, which may lead to blood poisoning after the operation. There is also some diversity of opinion concerning its efficacy for the relief of epilepsy, or hystero epilepsy, and mania, seemingly dependent upon, or associated with, ovarian troubles. Dr Goodell advocates the operation in such cases of insanity, and quotes Esquirol, to the effect that derangements of menstruation are causal in one-sixth of all cases due to physical causes.

Mr, Lawson Tait, of Birmingham, England, was one of the trio, who each, independently of the others, originated and performed this operation in the months of July and August, 1872. It was published, at that time, only by Dr Battey, whose name it justly bears. Mr Tait has since had a much wider field for experience than our modest, but inventive and skillful American surgeon, and quite recently has astonished the profession, abroad and at home, as much by the boldness and originality of his views, as by the remarkable success which he has attained. His deductions controvert some long-established opinions, and whether these are accepted or not, his researches afford clues, which followed, promise to lead to a more accurate understanding of some hitherto obscure pelvic affections. His earlier operations were performed for the relief of hæmorrhage from myomata, and he then removed only the ovaries, but afterward included the fallopian tubes also, an addition which he deems of great importance. He published in July, of last year¹, remarks upon the diagnosis and treatment of chronic diseases of the ovaries, in which he advanced the opinion that abdominal operations in the hands of an expert, are so little dangerous as to be justifiable for relief from long-continued suffering, and that the earlier usage of deferring operative interference until life was immediately threatened, was an error. He also states, that all the evidence before him showed the phenomena of menstruation to depend upon the fallopian tubes, and not in the least upon the ovaries, that the tubes are involved in all cases of ovarian disease, and, in the large majority, are the principal seat of the difficulty, that many cases of abnormal menstruation can be relieved in no other manner than by the removal of the tubes and ovaries, and that the proceeding is justifiable, that, in his last series, of thirty-five cases of chronic ovaritis and tubular disease alone, he had lost but one, and, the operation being yet in its infancy, he believes this percentage of mortality can be materially lessened. He claims, also, that these recent operations for oophoritis have done more to enlighten us upon the physiology and pathology of ovarian disease than all other previous sources of information, that they have also shown that many of the sufferings from pelvic symptoms,

¹ *American Journal of Obstetrics*, July, 1882

which have been referred to the ovary, are really dropsy, inflammation, and suppuration of the tubes, producing sterility, and a host of painful ailments which make life a burden. The diagnosis, he allows, is not always clear. Examination will often reveal to the practiced finger, in the vaginal cul-de sac, a fixed tender mass composed of the enlarged and probably adherent ovary, and of the occluded and distended tube, and the peculiar sickening pain felt when this is touched, will afford conclusive proof as to its nature. When this evidence cannot be attained, the presumptive diagnosis must rest upon the history of the case and the symptoms manifested.

Dr T A Emmet, at a meeting of the New York Academy of Medicine, last December¹, stated that he had learned orally from Mr Tait, that in cases of obscure pelvic inflammation, characterized by severe symptoms, and which did not yield to treatment within a reasonable length of time, he opens the abdomen and invariably finds this dropsical condition of the tubes, which are distended with either serum or pus. The removal affords immediate relief, and it is the only means which can Dr Emmet also added that the improvement which he had personally observed to follow Mr Tait's operations, had been something almost beyond conception.

In a paper read before the New York Academy of Medicine, last December, Dr T G Thomas said, in reference to the views of Mr Tait, that while he did not feel warranted from his own observation and experience in accepting them fully, he thought there was sufficient of truth in the statements to make the essay the most valuable to the gynæcologist which the present decade had produced. He also mentioned another proposition of Mr Tait, which was not included in the paper, but orally communicated to Dr Emmet. That tubal dropsy and ovarian disease are often the real cause of recurrent peritonitis or cellulitis, which is produced by an occasional discharge of the purulent contents of the tubes. Dr Thomas reported four cases in which he had operated, where great menstrual derangement existed, together with recurrent peritonitis and cellulitis, conditions which the operation showed to have been produced by the state of the tubes described by Mr Tait. In three of these, the result was very satisfactory, the fourth patient was in an exceedingly reduced physical condition from recent attacks of peritonitis, when the operation was performed, and died on the sixth day, from an insidious attack of the same disease which came on twenty-four hours after. More recently he has operated upon a fifth case, the patient completely bed-ridden, and required no less than ten grains of morphine, subcutaneously, per day, to relieve the intolerable suffering. The ovaries and tubes were again found in the typical condition described by Mr Tait. He also remarked that no one of the five patients upon whom he had operated would not have considered death a welcome relief from their sufferings.

It appears singular that this condition has not been before noted or suspected, but it is stated that since the publication of these facts, a well known micro-

scopist of New York has said, in his examinations he had frequently noted distension of the fallopian tubes. Mr Savage, of Birmingham,² also takes the ground that hydro and pyosalpinx are met with quite frequently, and states that the first effect of the inflammation is to close the uterine or fimbriated extremities of the tubes, allowing collection of the abnormal secretion, thinks that the relatively large amounts of areolar tissue in the walls of the tubes, as compared with the uterine wall, accounts for the frequent presence of pus in the former. He says the diagnosis must often be presumptive, and based upon the physical signs and clinical history. The operation of removal is often difficult and tedious, from the firmness of adhesions, and the risk of the escape of the fluid contents in the pyosalpinx. The results of such conditions when left to themselves, may be first, resolution or absorption, which is very improbable when pus is present, and which would not affect the results of former adhesions. Second, bursting into the uterus, or vagina, which *may be* curative or into the peritoneum, which would be almost certainly fatal. The same physician, later, calls attention to the comparative frequency of recurrent attacks of pelvic inflammation caused by pyosalpinx, and thinks that many cases of supposed pelvic cellulitis hitherto regarded as incurable, can be relieved by the removal of the tubes.

Dr T G Thomas recently introduced a patient at the clinic of the College of Physicians and Surgeons, who was suffering from recurring pelvic peritonitis, and in whom he deemed these attacks due to the cause pointed out by Mr Tait, as both ovaries and tubes were enlarged. The first attack of peritonitis had been light, the second more severe. He remarked that "although the tubal enlargements could be apparently made out with unusual clearness, still the diagnosis was not a positive one, and he did not think operation advisable, because the woman was not suffering to an extent warranting so radical a procedure." He added, "I cannot impress upon you too strongly, that the dangers of this operation are very great, and the great fault I have to find with Mr Tait is, that he makes too light of them altogether. I cannot believe that the high standard of success which he has so far maintained, will be kept up in the future." This opinion corresponds with that expressed in an able paper read by Dr G I Ingleman before this Association in 1878, in which he faithfully depicts the difficulties and dangers of Battey's operation, but Mr Tait does not always make light of these difficulties, for in a paper published in February of this year, he says, speaking of the hydro and pyosalpinx cysts. Generally they are much smaller, holding only a few ounces, and then their removal, by reason of dense adhesions, constitutes by far the most difficult class of cases I ever have to deal with. Why the simplest of all, the removal of a parovarian cyst, should be classed as an 'ovariotomy' and held up for admiration, and these most difficult cases dubbed 'Oophorectomies,' and held up to scorn, I cannot imagine."

¹ London *Lancet*, January 6, 1883.

² Birmingham *Medical News*, January 2, 1883.

Dr P Harris' paper upon the revival of symphysiotomy in Italy,¹ is worthy of notice from the remarkable success which attended the operation. Between 1866, and December, 1880, fifty cases are reported, with eighty per cent of maternal recovery and eighty-two per cent of living children. Nine of the ten women who died were delivered of living children, and eight of the nine mothers who bore dead children, recovered. Of the children lost, five were shoulder and breech, and four vertex presentations. In only one instance did mother and child both die, and this was a case of back presentation, operated upon on the fourth day of labor. There have been three additional cases since, in which all the mothers recovered, but two children were lost. All the operations were performed upon rachitic subjects, the deformity being generally antero-posterior contraction. The separation at the pubis amounted to about two inches, which was obtained without any effort, and without lesion of the sacro-iliac synchondroses. An immovable dressing secured firm reunion of the parts in all who recovered? No after pelvic disease occurred, and the women were in good health. In one case only, vesico-vaginal fistula followed, which was easily cured. The operations were performed principally by Professors Morisani and Novi, of the University of Naples. The section is made subcutaneously, with a probe-pointed sickle-shaped bistoury, an incision being made above the pubis, the knife is slowly passed behind the symphysis until it reaches the pubic arch, when its cutting edge is brought to bear upon the ligaments, and they are divided from below upward, the pelvis is not forced open, the foetus not dragged upon, but when the head presents, the conclusion is generally left to nature. The incised part is treated antiseptically, and by irrigation in warm water, and as soon as convenient the bones are kept in opposition by the immovable dressing. The usual time for complete pelvic restoration was from forty to fifty days. Dr Harris remarks that "this more extensive test upon the living has proved that greater pelvic mobility exists than John Hunter demonstrated upon the cadaver," each inch of pubic separation, though increasing but little the sacro-iliac, adds to the transverse and oblique diameters, and makes it possible, if time is allowed, for the head to mould itself sufficiently to pass, this result is shown by the statement that forty-two out of the forty-six vertex presentations were thus delivered alive, with a recovery of eighty per cent of the mothers. Dr Harris states that the Porro operation in Italy saved 45.5 of the women and 77.5 of the children, and I find elsewhere that he has stated, that out of the last twenty-eight cases, from May, 1879, fifty per cent of the women were saved. But the two can hardly be compared, as the sphere of symphysiotomy is confined to those cases having a conjugate of $2\frac{5}{8}$ inches (sixty-seven millimeters), and upwards, cases not very uncommon, where the pelvis is somewhat too small to permit the birth of the child, and in which premature labor would save it, did opportunity offer. With a diameter less than $2\frac{5}{8}$ inches, other means must be adopted.

Dr Montgomery, of Philadelphia, not long since published conclusions which he had drawn from an analytical study of this subject, which are here briefly stated. That craniotomy is never justifiable, since it is our duty to try and save both mother and child. That in pelvis of a conjugate of 3.25, or over, forceps can be employed, when 2.75 or upwards, version, $2\frac{5}{8}$ or over, symphysiotomy, and in less than $2\frac{1}{2}$, the Cæsarian section, performed reasonably, offers better results for the mother. This should not, however, be the old operation, but the modification recently introduced, I think by Sanger,¹ which has been found more successful than the old method, and a case is recently recorded which was operated upon by Dr Leopold, in Germany,² in which both mother and child were saved.

In a limited number of cases, when the os is dilated, laparelytotomy may be preferable to uterine section. In all lesser degrees of distortion, when opportunity is afforded or in subsequent pregnancies, premature delivery should be induced.

EXTRA-UTERINE PREGNANCY

Some important advances have recently been made in the treatment of extra-uterine pregnancy up to a certain stage of its existence, which appear to offer a safer and surer path out of this difficulty than previously discovered. The first instance of this treatment which the writer has found recorded, was reported by Dr J C Reeve, in 1879.³ In this case the diagnosis was positive, and the time about the end of the third month. Faradization was used as strong as it could be borne, for nine days successively, for about ten minutes each session, one electrode upon the tumor in the vagina, the other, sponge covered, carried over the external abdomen. Ten days after the last application the patient was decidedly better, and in a month the breasts had become flaccid and the tumor gradually decreased in size. This was successful, although accomplished with inferior apparatus, and more than necessary disturbance. Cases have been reported within two or three years, by Drs Lusk, Bache, Emmet, and others, where the diagnosis was regarded as satisfactory, and similar treatment was successful. Dr T G Thomas last year,⁴ in a paper upon this subject, fully discussed the means of diagnosis, and related the results of his own experience in twenty-one cases. Six of these were treated by galvanism, and all recovered. His conclusion is, that if such a tumor be discovered, and its nature tolerably settled before the fourth month, the destruction of the foetus by galvanism should be preferred to any other method of treatment. If there should be error in diagnosis, it could do no harm, if diagnosis were correct, experience proved it effective. Dr Garrigues remarked that it had been successful up to the middle of the fourth month in every case in which it had been employed, and he thought it could be used with advantage at any period of foetal life. The last communication upon this subject was from Dr A D Rockwell, the operator in many of

¹ See paper by Dr Garrigues *Am Journal Obstetrics* May and June 1883.

² Archives für Gynäkologie xix p. 400

³ Trans Am Gynecological Society 1879

⁴ 1882

¹ *American Journal of Medical Sciences* January 1883,
- *British Medical Journal* April 21 1883

Dr Thomas' cases,¹ in which he reports seven cases, with the method of use of the agent. His first case was one of tubal interstitial pregnancy at almost three months, and was perfectly successful. More recently he had treated three which had been published, and three more which had not. The results in all, more thoroughly establish the value of the treatment. Two of these will be briefly epitomized to show the method. His fifth case was declared by Drs Thomas and Emmet to be a combination of both intra and extra-uterine pregnancy, and was about two and a half months advanced. There was a tumor of the size of a pullet's egg distinctly perceptible two inches to the left of the median line, and nearly on a level with the pelvic basin. It could be moved from Douglas' cul-de-sac towards the margin of the ribs, and it gradually increased to the size of a billiard ball. The negative pole of a galvanic battery was brought into contact with this growth through the vagina, the positive, a large flat electrode placed upon the abdomen, the object being so to diffuse the current as to produce the least possible action upon the abdominal muscles. The maximum strength employed was eighteen cells, or power of twenty-four volts, used with rapid interruptions. This was repeated four times in six days.

The tumor not only diminished perceptibly in size, but changed its position an inch or two. Since that time it has gradually grown smaller, until now, three months after, it can hardly be detected, at the same time there is now developing, in the uterus, a six months' foetus.

The sixth case was about four months advanced, a current of twelve cells (about 16 volts) was used, interrupted for ten minutes, then quickly increased for one minute without interruption. Great care was exercised, in this case, on account of the increased distention of the fallopian tube from the more advanced stage, and the consequent danger of rupture. A second application, the following day, concluded the treatment. Two weeks after the tumor had decreased one-half, and, after several months, cannot be perceived by external examination.

In the last case, the pregnancy had advanced to the third month, and the tumor, about the size of a child's fist, was movable, and could be distinctly felt, both from without and within. An anæsthetic was given, at the advice of Dr Emmet, for fear of cyst rupture from involuntary movements, a current of 16 volts only was used, and repeated three times afterward, at intervals, during six days. The contour and seat of the tumor were changed after the first application, and it rapidly decreased in size. The treatment was repeated afterwards to accelerate the process of absorption.

This method of treatment is safe and simple, only requiring caution, in advanced cases, to avoid rupture of the sac by too much strength of current. Galvanism is decidedly preferable to Faradism, as being more certain. Catalytic effects pertain only to the former, and the changes produced by this action, in organic bodies, continue long after the current has been used.

POST PARTUM HÆMORRHAGE

A reference to some recent suggestions for the relief of severe cases of post partum hæmorrhage and of the collapse which follows. The hypodermic injection of ether has been lauded in extreme acute anæmia. It appears, however, only to act as a temporary stimulant, of the same character as the introduction of a small quantity of ammonia into a vein. Professor Hayem's experiments on artificially exsanguinated animals, recently detailed at a session of the Paris Academy of Medicine¹, prove that no effect is produced except a temporary excitation of the heart beat, while the use of defibrinated blood, in many cases, prevented a fatal result.

Professor Chahbazian, of Paris², extols an alkaloid of ergot, called ergotinine, which is prepared by M Tanret, of Paris. Only three grains of this can be obtained from a pound of the ergot. One fiftieth of a grain is dissolved in twenty minims of alcohol or chloroform, and five to ten minims of the solution injected hypodermically, to be repeated, if necessary, but never to exceed twenty minims in all. He states that it acts very speedily and energetically, uterine contraction following its use in from two to five minutes.

Dr Langay, of Paris, says that he has found faradization the speediest and most effective means of producing instant and energetic uterine contraction in cases of this difficulty.

Dr J F LePage, in a recent article³, refers to an old but now neglected method, auto transfusion, in acute anæmia from post partum hæmorrhage, and believes that where patients are not in articulo mortis, it will prove successful.

It is also again recently referred to by Mr Percy Boulton⁴, who, after enumerating the ordinary means, including hot water 110° to 120° injected into the fundus uteri by a syphon syringe, says, should symptoms of collapse appear, raise the foot of the bed to an angle of 45°, apply a sinapism over the heart, and bandage firmly legs and arms, beginning at the extremities, etc.

Confidence in the practical efficacy of direct blood transfusion, in cases where death appears imminent, has very much lessened in France, Germany, and England, and Dr Lusk, one of our late authorities, says, that although theoretically it is the most rational method of treatment—practically it is unsatisfactory. Dr Matthews Duncan, at a meeting of the London Obstetrical Society, last January,⁵ spoke of transfusion as merely a hopeful proceeding, remarking that patients who survived it were often spoken of as being saved by it, which was a manifest mistake. In many cases it has caused death, and most of the difficulties and dangers were produced by the attempt to transfuse blood.

These estimates are due partly to the uncertainty of obtaining a blood supply, and to the unpleasant symptoms which often, and the fatal results which, at times, follow direct transfusion, and partly to the

¹ Brit. M. J. (Lancet) Feb. 17, 1883.

² Lancet, Jan. 12, 1883.

³ Brit. M. J. (Lancet) Feb. 17, 1883.

⁴ Lancet, Feb. 17, 1883.

⁵ Lancet, Jan. 12, 1883.

delicate instruments and manipulations required. To mediate transfusion may be objected the same want of blood supply, and the loss of time occupied in defibrinization and re-heating, the chance of embolism from imperfect separation of all fibrinous particles, and the possible danger of contamination from bacteria during the process of whipping. Other fluids have been suggested, such as fresh milk, by Dr Thomas, but this is found open to grave objections, and has been but little used. Many years ago weak saline solutions were suggested where blood could not be obtained, but physiological objections were strongly urged against the measure. Dr Barnes states that they were employed, some years since, by Drs Little, Woodman, and Hickford, in England, and that one of the cases of Dr Woodman recovered.

Mr Schwartz published, about two years ago, the result of experiments made upon artificially exsanguinated animals, with the conclusion that a saline solution thrown into a vein would relieve the phenomena which accompany an extreme degree of anæmia. The first application of this to the human subject, in Germany, as far as records are accessible to the writer, was made by Dr J J Bischoff, in 1881,¹ in a case where death seemed imminent from hæmorrhage, who injected into the left radial artery, on account of the difficulty of finding superficial veins, about forty ounces of a solution of common salt, six parts to one thousand, with the addition of a few drops of lye, as no soda was at hand. This was allowed to flow slowly in, from a receptacle elevated a little above the arm, and an hour was occupied in the process. During this time the pulse fell from 156 to 122, and rapid improvement of the patient was observed, followed by recovery. None of the unpleasant symptoms of oppression, which attend blood transfusion, were manifested. Schwartz has recently published his conclusions more fully,² in which he states that death from cessation of the circulation is due not so much to the great diminution of the blood globules, as to the disproportion between the size of the vessels and their fluid contents, and that the latter is safely and surely remedied by injections of weak alkaline solutions. The minimum quantity to be administered to an adult should be about five hundred cubic centimeters (about seventeen ounces). He also reports a violent hæmorrhage following the removal of uterine cancer, where the pupils were insensible, consciousness lost, etc., where he injected one thousand cubic centimeters into the median vein, with the most satisfactory result. He mentioned five other cases which were reported by Bischoff, Kustner, Kocher, and Kummel.

Recently it has been again brought into notice in England.³ Mr Jennins, resident accoucheur at the London Hospital, reports a case which occurred, last August, in a woman who, after a fall at full period, was attacked with profuse antepartum hæmorrhage, and was collapsed, to a marked extent, when seen. The os was fairly dilated, and right shoulder presenting. The flooding was temporarily checked by hypo-

dermic injections of sclerotic acid and brandy, and thinking that any attempt at delivery would prove fatal the median basilic vein was found with much difficulty, and sixteen ounces of a saline solution thrown into it, by means of a common metallic syringe. Signs of animation are stated to have speedily followed, vision, hearing, and speech returned, and the subsequent progress was favorable. The solution here used was composed of common salt fifty grains, chlorate of potash three grains, sulphate and carbonate of soda two grains each, to twenty ounces of water, to which two drachms of absolute alcohol were afterwards added.

Mr Coates related two cases before the Obstetrical Society of London, December 6, last year,¹ both of severe secondary hæmorrhage after labor. In the first it had recurred violently several times, and continued on the last occasion, for eight hours after the patient was seen by the medical attendant. She was found almost moribund, unconscious, and pulse barely perceptible. The saline alcoholic solution was allowed to flow into the radial vein, the only one perceptible of any size. The result is described as marvellous—sight and consciousness returned, and she was soon able to retain stimulants.

In the second case, the hæmorrhage occurred the ninth day after labor, following labor at stool. Half an hour after, her appearance showed a great loss of blood, which was still flowing in gushes. The uterus was relaxed, filled with clots, and could be felt externally, extending almost to the ensiform cartilage. The os barely admitted a finger. Sclerotic acid hypodermic injections, ice, kneading, etc., failing to arrest the hæmorrhage, she was brought to the hospital. She was much worse after her arrival, and one of Barnes' dilators was introduced, with a view of further examination. Before this could be accomplished her condition became most critical—pulse hardly perceptible, respiration irregular, extremities cold, jactitations, etc. The median cephalic vein was found after some delay, and twenty-two ounces of simple water, at a temperature of 100° F injected. The pulse ceased to intermit, respiration improved, sight returned, and the uterus slowly but distinctly contracted. The os being now fully dilated, the uterine interior was examined, but nothing found to explain the flooding. As there was still considerable bleeding, the uterus was swabbed out with a mixture of equal parts of a saturated solution of persulphate of iron and water, and an enema of beef tea and three ounces of brandy administered. In a short time she could swallow, and stimulants were freely given. The patient progressed uninterruptedly after this, having no bad symptom except a rise of temperature to 102° F for the first few days. The narrator thinks that the omission of the salines in no way lessened the success of the injection, and though a fluid of a different specific gravity, and one previously supposed to produce swelling of the red globules, and loss of pigment, the result was wholly beneficial. He also states that he examined the globules microscopically, twenty-four hours after the injection, and there was no obvious alteration in their appearance.

¹ *New York Med. Journal* February, 1882

² *Berlin Klin. Woch.* No. 40, 1882

³ *London Lancet* Sept. 16, 1882

¹ *London Lancet*, Dec. 30, 1882

Dr Robert Barnes, referring to this case,¹ said "That the dynamic condition of the circulation, under such conditions, can be restored, even to a partial extent, by the injection of twenty-two ounces of simple water, is one of the most interesting physiological and clinical demonstrations I have recently observed."

Dr H J Garrigues, of New York, after advocating the injection of defibrinated blood, in place of direct transfusion, closes a short recent article, thus "When blood cannot be obtained, I should prefer a saline solution as containing no foreign substances, no solid corpuscles—being always attainable, and not liable to decomposition. Table salt is found in every house, and all that is needed is to inject a half per cent solution of this substance."

It is not improbable that all the cases which have been cited might have recovered without intravenous injection, but as a prelude and adjunct to other measures, where the prostration is so great that stimulants or nutriment cannot be taken or absorbed, this offers a safe and ready auxiliary. The knowledge that such a remedy is always at hand, and that it can be used with safety and decided advantage, appears a great accession to our therapeutic resources in these alarming cases.

FORCEPS

A few words upon a subject not novel—the frequency of forceps' use now taught, and the existing tendency to the abuse of this valuable aid to the obstetrician. For many years past much thought and labor have been expended upon this instrument. A majority of teachers, and some who are not, have introduced new forms and variations, each claiming some superior quality. Much of this has been undoubtedly due to the increased knowledge of the *rationale* of labor, but the pendulum appears to the writer to have swung too far in this direction. One of the latest additions is the invention to which Dr Alex. Duke called the attention of the Obstetrical Society of Dublin last year. It consists of tractors, which are applied with the forceps blades, and before they are locked, these can be attached to a belt about the waist of the operator, and with toe-caps upon his shoes, to prevent slipping, the inventor claims an immense gain of power for shortening labor. He considers that there is more chance for the child and less risk to the soft parts of the mother, by pulling the head forcibly through the pelvis than if allowed to remain and mould itself to the outlet. We shall probably next hear of a small electro-motor of one-horse power, so arranged as to do the pulling, and save the operator as well as the mother any exertion.

The contest between the advocates of a judicious use of forceps and those who employ them with unwarranted frequency, has been going on in Great Britain for some years. Arguments for the latter course have been based upon statistics, claimed to show a considerable gain to maternal and a large one to foetal life from this practice. Statistics possess valuable elastic qualities. Four years ago this evidence was examined and reported upon by the writer

with widely different conclusions. Others have drawn the same. Dr Galabin, from statistics of over 40,000 cases, proved that the maternal mortality when the forceps was used once in ten or twelve cases, was nearly double that which occurred when they were seldom used, while the gain to infant life was only 0.4 per cent.

While this is being written, an address of Dr Denham, presiding officer of the Obstetric Section of the Academy of Medicine in Ireland, has appeared. In this he cites statistics of the Rotunda Hospital at Dublin, taken from the reports of Drs Collins, Shackleton, and the more recent ones of Dr George Johnston, amounting in all to over 39,000 cases. Commenting upon the figures, he says: "It is patent that by the more frequent use of forceps in modern obstetrics much has been done for the relief without adding to the danger of labor." This is a most singular deduction, as the figures clearly show that Dr Collins, who used forceps in 16 per 1,000 women, lost 9.99 per 1,000, Dr Shackleton, who used them in 14.5 per 1,000, lost 11.8 per 1,000, while Dr Johnston, using forceps in 82.4 per 1,000, lost 18.98 per 1,000, the maternal mortality being almost double that of Dr Collins in about eighty times the number of forceps cases, nothing is said of the value of this instrument, when really needed and skillfully employed than the writer but have we not gone far beyond this, and all rational limits, in instrumental obstetrics? The tendency of present teaching and practice is to send forth young men who are not, and cannot be, skilled in forceps use, with the conviction strongly fixed, that if there be some delay in the second stage of labor, forceps is the immediate remedy.

Dr Hamilton, of Falkirk, formulated a general rule that the second stage of labor should not be allowed to last usually much more, and sometimes even much less, than two hours, and similar opinions obtain with us. Five years ago the writer heard expressions from members of a society which should be, and is, regarded as of the highest authority, which were so extremely radical as to excite great surprise. It was claimed by one, that if there was a cessation of advance by the head for fifteen minutes during the second stage, forceps should at once be used. Another stated that after waiting a time for nature, even if he knew that in two or three hours more the labor could be successfully completed by her efforts, rather than subject the woman to this additional pain it was the duty of the accoucheur to apply the instrument and deliver at once. There were, however, present those older and of wiser counsel who differed much from these opinions, and suggested that the tone of the discussion needed modification.

Rules specifying any time beyond which the application of forceps should not be delayed, appear to be made rather for the benefit of the doctor, than that of the patient. Time is a very unsafe guide when the interest of mother and child only are concerned. Natural labors are often eight, ten or more hours in the second stage, and terminate in all respects successfully for mother and child. Nature requires time,

¹ *Lancet* Jan. 27 1883

especially in primiparæ, to mould the head to the pelvic outlet, and at intervals, progress is hardly perceptible. The cause of retardation, and the maternal conditions are the considerations which should influence interference. If impaction is *positively* shown, forceps, if retardation is due to loss of nervous power in the mother, quinine; if to insufficient uterine effort, ergot, discreetly and properly used. But the fashionable usage of the day calls for forceps, whatever the cause of delay. The young physician thus taught will never dare to wait sufficiently long to know what nature can accomplish, because of the vivid picture of impaction, sloughing, death of child, etc., which will rise before his excited fancy. It will be long, if ever, before he learns that such dangers are very much overstated, as my own experience and that of thousands who commenced their work before this forceps craze became rife, can testify. A knowledge of healthy action is necessary to, and must precede an understanding of pathological conditions. He who has never ascertained what nature's forces can accomplish in labor, cannot compare the results of this physiological process with those produced by his own interference, and consequently never will realize that what has been done artificially by his so called, and often miscalled aid, might have been better and more safely accomplished without it.

An able editorial appeared in the *London Lancet* a few months since, deploring the want of means of instruction in practical midwifery, and urging the necessity of providing increased facilities for this purpose. The writer remarks "A knowledge of *how* to use instruments is no more, or even less important than the knowledge of *when* to use them, and the latter is more difficult of acquisition than the former," and again "Otherwise students go forth with instructions to use forceps when labor is delayed, or at least when it ceases to progress, and great injury, both to patients and doctor, is the result of their ignorance of both the above items."

These words are hopeful indications, since they evince a partial comprehension of the mischievous results which attend the use of forceps in unskilled hands.

What motive can even the *expert* in their use have, to apply the instrument when he thinks labor will be safely ended in two or three hours without interference. Anæsthesia offers relief from pain, without danger, and there certainly is more tendency to after hæmorrhage from hastening labor by the instrument.

What is the reason for thus interfering? Can it be economy of time for other engagements? This motive would not be generally avowed by those who thus act, but it is, at times, openly acknowledged.

Six years ago Dr West, in his presidential address to the Obstetrical Society of London, used the following language "There is one point on which I think it impossible to insist too strongly—instruments are to be used and operations resorted to for the sake of the patient and the child, never for the sake of the doctor, and yet I have in years gone by heard men say 'I could not wait any longer, I had this or that to do, so I put on the forceps and got the case over'."

To-day, in a recent journal, the writer chanced up-

on the following statement, from one well-known in the profession. Speaking of a case of labor, he says "As the head rapidly neared its exit, and a few more pains would have expelled it"—suffice it to say he applied the forceps in order to shorten labor by one-half hour, to be in time for another engagement. This gentleman knew that in his hands the instrument would do no harm, but he also knew that it was unnecessary, and the motive for its use an improper one.

It must be remembered that those who are experts in forceps use are very few when compared with the numbers who practice obstetrics. If this is the rule for the expert, it will certainly be the *practice* of the non expert, and at a cost to female humanity such as elicited the strong language of Dr Goodell, when he said "To tell you the truth, such grave lesions to the mother, and for that matter to the child also, are so constantly brought to my attention that I am disposed to accept Baudelocque's dictum, that, take it for all, the forceps has been more injurious than useful to society."

Even if used, as probably it mostly is, really and only for the sake of relieving the mother from some hours more suffering, such relief is often dearly bought, and the attendant, if competent for his duty, has or should have, a power in anæsthesia not only to relieve the pain, quiet complaint, and sustain the patient, but one which will subdue any spasmodic or irregular action, assist in perineal dilatation, and contribute to make delivery safer if not more speedy.

Within a few years the writer has found it necessary at different times to leave two primiparæ just before labor, in charge of different brother practitioners. They had both been trained in the recent practice, and considered themselves fully competent to use forceps. The women were healthy and well proportioned, and the writer feels assured could have been safely delivered naturally, after a somewhat tedious first labor. Forceps were used in both cases. One had a severe double cervical laceration extending to the vaginal junction, the other a perineal rent extending into the rectum, neither of which accidents of sufficient importance to attract attention, ever occurred in the writer's obstetric practice of over forty years.

In view of such facts, and with the knowledge that they are of daily occurrence, how can one who has delivered many hundreds of women with but sparing use of forceps, and results for mother and child which will compare well with those which any frequent forceps advocate can show, how can such an one avoid a protest against this fashion of the time, in the name and for the sake of the mothers, as well as for the ultimate repute of a useful, but now much misused instrument.

ERGOT AND ANÆSTHESIA IN LABOR

The object in noticing this subject is to suggest a reason for the wide difference in opinion which exists with regard to its usefulness in obstetrics. The statement has been not infrequently made that ergot should never be used during actual labor, because it produces tetanus and permanent contractions, which are dangerous to both mother and child. The effects of any medicine vary exceedingly, in accordance

with the genuineness of the article, the dose given, and its mode and frequency of administration

In this country, fluid and semi-solid extracts have been thought reliable. The object to be attained by its use in the second stage of labor is merely a sufficient additional impetus to render feeble and inefficient uterine contraction more regular and effective. The object when used, as it constantly is, to check post partum hæmorrhage, or as a preventive to its occurrence, is to secure full and permanent contraction. If the same doses are used for the former purpose as for the latter, is there any cause for wonder that effects result such as have led Dr Barnes to say "When you have given ergot, you are likely to be in the position of Frankenstein—you have evoked a power which you cannot control. Ergotism, like strychnism, will run its course." Would Dr Barnes hesitate to use strychnine as a nerve tonic, from the fear that strychnism, as he terms it, would follow?

The dose of ergot necessary for securing contraction after delivery is not so important, provided enough is given. In providing it for the widely different purpose of strengthening insufficient uterine contraction during the second stage of labor, there is evidence of a general ignorance or carelessness as to dose and repetition. Very little has come under the notice of the writer in which reference was made to properly small and repeated doses. Leishman advises an infusion of sixty grains to six ounces of water, one-fourth to be given every ten or fifteen minutes until distinct increase of action is manifested. This is about twice the needed dose, and repeated much too often.

Playfair says fifteen to twenty grains of the powdered ergot mixed with water, or the fluid extract in doses of twenty to thirty minims will make uterine contraction more efficient in fifteen minutes, and says nothing of repetition. He does, however, remark "Perhaps, as has been suggested, the administration of the fluid extract—five to ten minims every ten minutes until energetic action sets in—would remedy some of its risks."

Dr Lusk advises entire abstinence from its use, unless as a prophylactic against post partum hæmorrhage. One paper only has come to the notice of the writer in which smaller doses are advised from practical experience. This is from Dr W H DeCamp,¹ who declares his conviction that ergot can be safely and beneficially given for the purpose named, provided the dose is properly regulated. He states that ten to fifteen drops of the fluid extract will always excite uterine contraction, and that it must not be pushed too far, or tonic contractions may result.

The writer administered this drug for many years in cases not very frequently seen, where the second stage of labor was retarded by insufficient contraction and no pelvic obstacle existed. He regards it as a valuable resource in such cases, and has never witnessed, in his own practice, the tetanic contractions attributed to it since he learned how to employ it. For this purpose an infusion of the freshly and coarsely powdered kernels, two grammes (about thirty grains,) to eighty-five grammes of water, or about

three ounces, has been the preparation used. Of this a tablespoonful given every thirty minutes until some effect was apparent. In some cases this was obvious after one dose, in some two or three were required. In cases of nervous exhaustion on the part of the patient, a full dose of quinine was also given.

It should be added that the writer as a rule makes use of anæsthetics in labor, save in some exceptional cases of feeble uterine action, and that where ergot was administered and the pains become efficient, the anæsthetic was also used. How much modification of the effects of the former were produced by the latter agent he cannot positively determine but is sure that they act well together.

Dr Fordyce Barker, at the last American Gynecological Society session, after enumerating the conditions in which ergot was inapplicable, stated that there were cases where it could be used with great advantage. He usually gave an anæsthetic and then full doses of ergot, and the result had generally been that labor was speedily and successfully terminated.

In this connection it might be mentioned that Mr Fancourt Barnes claims that nitrate of amyl possesses properties antagonistic to ergot, and states that three minims of this drug, added to one drachm of ether, and taken by inhalation, will act as a sedative and anæsthetic without producing loss of consciousness, and will also subdue the tetanic contractions produced by full doses of ergot.

There is no doubt that this drug has been abused, and what valuable agent in the materia medica has not? That it has been given when entirely inappropriate, with only deleterious effects. There is no less doubt in the mind of the writer that the crusade against it has been due, not entirely to its improper use, but to the fact that the fashion of ergot use has given place to the fashion of forceps use, in hastening labor. Forceps, however useful, do not take the place of ergot. The child may be speedily removed by the former, but the ergot must be given after, to prevent the hæmorrhage which insufficient uterine action is apt to induce.

The contrariety of views in regard to the usefulness of anæsthesia for the relief of pain in labor also appears to the writer only explainable upon the supposition that it has been improperly and injudiciously used by those who oppose it. This has been before the profession between thirty and forty years and during this whole time, and to day, many obstetricians of eminence constantly employ it as safe, serviceable and entirely beneficial, while others denounce it as inducing post partum hæmorrhage, and various other evil effects, both upon mother and child.

The writer has previously recorded the favorable results of his own experience in its use since 1847 and can here only attempt briefly to show how such diverse opinions may be, and probably are the result of faulty administration.

Mr Cortes in a recent article² upon the true method of inducing surgical anæsthesia safely by the use of small quantities, repeated, is often needed to produce the desired effect uses in illustration which is even more applicable to its obstetric use. He says,

¹ *Western Medical Reporter*, October 1882.

² *Lancet*, Jan. 1883.

"the educated practitioner, who has made up his mind to give one grain of opium every hour, or twenty grains of chloral every four hours, for twenty-four hours, would hardly think it the same thing to give the twelve or sixty grains at once. There are three stages of anæsthetic effects which may be produced. First—the lessening or annulling of sensibility to pain, second—by increased dose, the abolition of intelligence, third—the abolition of mobility. The method and object of anæsthesia in surgery and labor differs very widely. In the former it is generally carried to the second if not to the third stage of effect before the pain is inflicted. For the latter it is rarely necessary to produce much more than its first effect, and this is produced 'pari passu' with the pain. A little experience will soon teach the physician how to arrest its effect at this stage, or at least before the second is fully attained, and to vary the amount as may be required by different degrees of pain.

Care in administration as to the quantity employed and the length of time, and regularity, of inhalation, is the whole secret of successful use. As a rule it should not be regularly given until the beginning of the second stage of labor, although where progress at an earlier period seems delayed by the rigidity of the os, the inhalation of ether in small quantity will quiet irregular contractions, and effect a more rapid cervical expansion. After the second stage of labor is reached, inhalation should be allowed only with each pain, commencing when uterine contraction is first felt to be returning, by a finger in the vagina, or by the sensations of the patient, with full inspirations for a minute or two, until uterine contraction has reached its climax. The inhaler is then at once to be removed, and not again used until the pain again recurs. When little experienced in its use, the writer sometimes allowed inhalation to relieve feelings of discomfort or alleged pain during the intervals of uterine contraction. This resulted in irregularity of recurrence, and disturbance. He can clearly see that where the rule of administration just given is not mainly adhered to, disappointment as to general results might ensue. Not only should the time of administration exactly correspond with that of the commencing and augmenting pain, but as the labor progresses, and pain increases in severity, the dose should correspond.

There is no proof which the writer has ever seen, that used in such a manner, anæsthesia produces, or tends to produce, post partum hæmorrhages.

Dr Barker spoke very positively upon this subject when he said, last fall, that he had used chloroform in several thousand cases, and had not had post partum hæmorrhage but in one instance. He always, however, gives ergot after placental expulsion, to promote uterine involution.

It has been said to narcotize the child and lessen the favorable convalescence of the mother. The writer has seen no evidence that this is true. Where it has been used most fully and freely, the children have cried vigorously immediately after birth, and as to the mothers, the conviction was strongly forced upon him that convalescence was more rapid and per-

fect under its use, when compared with the previous results of six years without it. We all know how pain exhausts nervous power, this is avoided.

In conclusion, if anæsthesia ever produces post partum hæmorrhage, injury to child, or other than beneficial results, experience tells us that it must be due to the impurity of the anæsthetic employed, or to the want of that experience and discretion in its use, which is necessary not only here, but in all therapeutic measures which we employ for the relief of human suffering.

ANTISEPTICS IN PRIVATE OBSTETRIC PRACTICE

A few words of inquiry as to the extent and necessity of aseptic precaution in ordinary labor in private practice. A little more than a year since Dr. Robert Barnes published¹ a paper upon the subject containing many valuable suggestions. He divides toxæmia into endosepsis, autosepsis, and exosepsis, and counsels measures for the avoidance of each. With auto-infection, at present, we shall mostly deal. For the avoidance of this he gives directions for routine aseptic minutiae, including washing out the uterus once or twice daily, with plain or carbolized water—the attendant bathing the hand in carbolic acid solutions, all chamber utensils being rinsed with the same, and a little left in them.

None of those prophylactic measures seem to the writer necessary in cases of uncomplicated labor, and some of them absolutely dangerous. Intra-uterine injections are especially so regarded, and even those of carbolic acid solutions into the vagina have not always been harmless. Dr Minot, of Boston, a few months ago, wrote², that "he had been in the habit of using carbolized vaginal injections after labor, but since alarming symptoms had followed in two cases, he now only makes use of them when the lochial discharge becomes offensive." At a meeting of the New York Academy of Medicine, last March, a case was related, in which, after a week's use of uterine injections, a chill, followed by a decided rise in temperature, occurred, and Dr Barker stated that, although he had occasion frequently to resort to this measure, it must be used with care and not too long, even in conditions which required it. He remarked that the uterine sinuses closed ordinarily within three or four days after labor, and he had seen cases where he felt convinced that the use of this means, by the Chamberlain tube, had reopened some of the blocked up sinuses, and absorption of septic material had followed. In normal cases, outside of hospital service, the writer must think it bad and meddlesome practice to use not only carbolic solutions for vaginal and uterine injections, but *any* vaginal douche, on account of its tendency to remove from the bruised and excoriated surfaces an exudation which nature provides for their protection, besides, such measures as used by ordinary nurses may, through carelessness or ignorance, be made to supply increased facilities for septic contact and absorption. But whatever may be the necessity for such measures, or others, in hospitals, when the atmosphere is loaded with poisonous emanations, and however necessary strict cleanliness

¹ *American Journal Obstetrics* January 1882
Boston Medical and Surgical Journal November 23 1882

on the part of the attendant at all times and in all places, an experience of upwards of forty years convinces the writer that either these minute aseptic usages are unnecessary, or, that a great and sudden change has taken place in our external conditions, or in the female organization, for, during the attendance of many hundreds of obstetric cases, not unfrequently severe and protracted, in which there was very little interference with nature's powers, and no aseptic precautions observed, except cleanliness as far as possible, very few cases of child-bed fever developed, none of any gravity, and among his own patients he never saw one fatal. There is no question as to the utility of vaginal irrigation, carefully performed, in cases of foetid lochia, when associated with rise of pulse and temperature. We have, in this case, absorption of the products of decomposition. It has been stated that the poisonous principle of septic fluids has been isolated in the form of two alkaloids. Dr Simpson, of Aberdeen, considers this proved. This is, however, not material to our purpose, the poison is there, and in the present state of our knowledge, we have no proof that we can chemically destroy it in the human organism, by any agent which can be safely used. We can remove it, not by a syringe, but by thorough irrigation from a reservoir which affords a constant stream of water at 96°, until the fluid shows itself clear as it flows out. The material used is of little importance, provided it be harmless. Its value does not depend upon the addition of a germicide of sufficient strength to destroy bacteria, for its purpose is simply to wash away the decomposing detritus of blood and tissue. Lesions of the vaginal tract or uterine neck are more liable to absorb poisonous material than the uterine cavity itself, and hence vaginal irrigation, only, will often prove sufficient. As an illustration of this, the writer will append a condensed statement of a case furnished by Dr N Senn, of Milwaukee. Patient a primipara of twenty-eight years, labor tedious, and completed by forceps in the hands of a skillful accoucheur, child born healthy, considerable hæmorrhage after placental delivery, Dr. S saw the patient four days after, in consultation, she had had a chill two days before, and slight chills afterward, with high temperature and profuse sweating, when he saw her the pulse was 120, temperature 102½° F, the labia, vaginal wall, and cervix, on the right side, were found deeply lacerated, and the wound filled with coagulated blood, the vaginal discharge very offensive, and the right parametrium exceedingly tender, anti-pyretic doses of quinine had failed to control the temperature, constant irrigation was advised, and performed by means of a rubber tube attached to a fountain syringe, and inserted into the vagina, so that the upper extremity reached the highest point of the wounded surface, the reservoir was suspended above the patient's bed, and the rubber tubing secured in place by strips of adhesive plasters, a solution of 5 parts of salicylic acid, 100 of rectified spirits of wine, and 895 of pure water, kept at the temperature of the body, was allowed to slowly flow through, making its exit into a bedpan, which was changed when necessary. About two gallons were used daily. The

temperature fell the first day to 100° F, the irrigation was continued four days, the wound assumed a healthy appearance, and the patient rapidly recovered without an untoward symptom.

At the meeting of the New York Academy of Medicine, April 26, D R Tauszky read a paper upon treatment after parturition, in which he advised, for the relief of offensive lochia, accompanied by fever, syringing the vagina several times a day with a disinfectant solution, and thought uterine injections unnecessary, save in cases of internal violence, such as attend manual separation of the placenta or use of the forceps. When they are deemed necessary, prefers thymolized or simple water to carbolized water.

In a discussion in the New York Academy of Medicine, April 26, the opinion seemed quite general that septicæmia in the majority of cases originated in wounds of the vagina and cervix. Dr Chamberlain remarked that a breach of surface anywhere in the genital canal might be causative, but "he did not deem the existence of septicæmia an indication for washing out the uterus, unless the cause could be located within that organ, though it might be an indication for washing out the vagina." Doubtless the retention of decomposing material within the uterus is, at times, the cause of septicæmia, and if the vaginal irrigations do not speedily reduce the temperature, intra-uterine irrigation may be needed. For this purpose, however, the writer believes that a very weak antiseptic solution, or even water alone, is all that is needed. The results recorded by Dr F Hervieux,² of Paris, thirteen years ago, in cases of hospital puerperal fever, seem to confirm this view.

While writing, an article by Dr T G Thomas,¹ lately published, has attracted attention from its bearing upon this subject. Two severe cases of puerperal septicæmia are detailed, in which uterine injections of carbolic acid were employed, but this part of the treatment not commenced until there had been time for a full development of the autogenous poisoning. Two days were lost after the first manifestation of the disease in the first case, and five or six in the second, before Dr Thomas saw them and commenced this treatment. The second case died twenty-four hours after. The first, a primipara, had a short and uncomplicated labor. The nurse was directed to syringe out the vagina carefully, the next day, with carbolized water, which was done. About thirty-six hours after labor the temperature was 101°, twelve hours after this 102°, the succeeding morning, 103°, no chill having occurred, but some pain in the right iliac fossa, the same evening the temperature was 106°, the pulse 145. This was the condition when Dr Thomas saw her. He found a bilateral cervical laceration reaching to the vaginal juncture and directed washing out the uterus with carbolized water. This was carried out by two physicians who remained with her during the night, every four hours, by means of a Davidson's syringe and Chamberlain tube. The next morning the pulse had fallen to 120, and the temperature to 101°. She felt much

¹ *Med. Rec.* 1st May, 1883.
² *Trans. Clin. Soc.* 1st Feb., 1870, p. 10.

better, but had taken opium freely all night. The uterus was now washed out at longer intervals, but the temperature again rose, and again the injections were resumed every three hours. Opium was also freely administered, ten grains of quinine given every eight hours, and rubber tubing, through which a current of ice water ran, was also placed over the abdomen. The injections were continued two days, and then stopped, the temperature again rose, and they were resumed. On the thirteenth day after this treatment was commenced the intervals between the injections were made longer, and they were gradually discontinued. Is there any evidence here to show what influence the carbolic acid had in the result? We see that very active medication of another character was resorted to, and we are not informed of the strength of the injections, or whether the quantity of fluid was sufficient to thoroughly cleanse the uterine cavity, so that the fluid ran out clear at the close of the procedure. A syringe was used, not steady irrigation, and it appears doubtful whether this result was fully attained. The temperature and pulse improved after each injection, and we might suppose that the carbolic acid aided to produce this effect, had it not been observed again and again, as a result of simple cleansing, when no acid was used. It appears to the writer that the poison which had already been absorbed before the injections were begun, continued to produce its effects in the organism, more or less influenced by the powerful medication employed, possibly increased, or renewed by the frequency of the injections, certainly only modified, as far as their influence was concerned, by the imperfect washing away of the uterine contents. It is very probable that in this case the seat of absorption was the lacerated cervix, and that constant irrigation of this region, earlier begun, would have produced speedier and more decided results.

Dr Thomas' conclusion from this case is, that puerperal fever should be treated upon as simple a plan as septicaemia of any other kind, viz. by washing out with some antiseptic fluid the surface where the disease originated. In his language "With some fluid which will remove the poisonous material which is being absorbed, and also, *as far as possible neutralize its poisonous qualities*." The last part of this sentence intimates a doubt as to the possibility. Is there any evidence that an antiseptic agent can be safely used of such strength as to destroy, or neutralize, a formed poison in the tissues or cavities in the body? We know that they can be so used as to prevent the formation of such poisons, but it is necessary that this influence should be constantly present and in action, and not pass away with the morbid products which are removed by injections or irrigations. In the latter case the writer can see no cause for the relief except in the *removal* of the poisonous material.

The case is quite different with the treatment advocated by Dr Alloway, of Canada,¹ who reports, recently, three cases of puerperal septicaemia which he treated by first washing out the uterine cavity with

plain or carbolized water, and then, by means of a Sims' speculum and a tent insertor, passing a suppository of iodoform of ten, fifteen or twenty grains to the fundus uteri and leaving it there. He usually employed this procedure night and morning, and had observed no poisonous or unpleasant results.

By the use of this agent in this manner, a constant antiseptic influence is generated which should prevent the development of poisons, if it can be used safely in sufficient quantity.

Similar in operation, and less liable to objection, is the effect of the oil of eucalyptus globulus, so much lauded by Dr Sloan¹ as a preventative of septicaemia, when it is to be feared, on account of lesions in the parturient canal from forceps or any other source. He employs it in the form of suppositories, consisting of oil of eucalyptus two parts, white wax one part, ol theobroma two parts. Each suppository contains about twenty minims of the oil. He states that it is neither poisonous or irritating in this quantity, does not coagulate the lochia, its odor is agreeable, and it appears to aid in uterine contraction. Mr Lister has also stated that this germicide was entirely devoid of any deleterious effects.

The conclusions which the writer thinks can be legitimately drawn from what has been presented, are, that the danger of auto-genetic poisoning after ordinary labor in private practice is not such as to demand the routine precautionary minutiae which Dr Barnes has suggested, that very many cases in which the lochia are offensive, are attended with, and followed by, no disturbance, and that cleanliness as thorough as can be attained, and care as to the general condition of the patient, are only usually necessary. That even in cases where rise of pulse and temperature occur, vaginal irrigation is frequently sufficient. That in cases where relief has followed the use of carbolized injections, vaginal or intra-uterine, the advantageous results do not so much depend upon antiseptic virtues as upon the cleansing effects by even a simple fluid, used in such manner and quantity as to secure entire removal of any decomposing matters retained in the uterine or vaginal cavity.

That when there is reason to apprehend absorption of morbid material by existing vaginal or cervical lesions, the suppositories of ol eucalyptus are much preferable to carbolic acid syringing, though they may be advantageously preceded by vaginal irrigation. That if these means should not avert a rise of pulse and temperature, continued irrigation of the parts affected, by a weak solution of Condy's fluid, salicylic acid, or some similar agent, should be employed. If these do not soon lower the temperature, or if the seat of absorption appears to be located in the uterus, intra-uterine irrigation of the same character may be adopted, to the extent of washing away all decomposing material. When antiseptic intra-uterine action is clearly indicated, the introduction of iodoform suppositories will accomplish everything additional that can be done locally, in the present state of our knowledge of the subject.

¹ *Canada Medical Review* March 17 1883

¹ *Med. and Surgical Reporter* March 17 1883

PLACENTIA PRÆVIA

The report of M. Hoffmeier, of Berlin,¹ upon this subject, deserves notice from its unusually favorable maternal results. He cites forty-six cases, thirty-five of which occurred in one year. Three of these were so near death from hæmorrhage when first seen that there was no opportunity for treatment. Of the remaining forty-three, six were treated by the waiting method and the tampon, in the other thirty-seven no tampon was used. Of the six treated at an earlier date by tampon, one died, two had a long and severe illness, and four of the children were dead. Of the thirty-seven others treated differently, one mother only died, and she had been treated by the tampon for twenty-four hours, and the placenta was offensive when delivered.

This is a maternal mortality of 2.7 per cent, which is much less than any previously published rate. The results for the children, even with no hurried delivery, were. Seventeen already dead, three died from perforation of the placenta, and three were premature—giving 37 per cent of the whole living, which reaches the usual standard. The placenta was located centrally in nineteen, laterally in sixteen, marginally in eight.

In central insertions he favors perforation of the placenta and bringing the feet through. This was done in five cases, in three of which it was necessary on account of the urgency of the symptoms, and two in which the child was already dead. His practice is to wait until some symptoms of labor are present, in the shape of uterine contraction or a funnel-shaped dilatation of the cervix, then as early and actively as possible proceed to deliver. The earlier this is done the more easily version, by the combined external and vaginal method, (one or two fingers in the os,) can be effected. This version was practiced whenever possible, and the hand introduced into the uterus only when absolutely necessary, the feet having been guided to the os and there seized, firm traction made, and the hæmorrhage effectually stopped by the buttocks. This was done in thirty cases. In six—three of which were breech presentations—in internal version was used, and in one, a head presentation, forceps applied. After bringing the breech into the uterine opening, the rest of the delivery should be slowly accomplished. The condition of the child may modify this rule, but must not increase the mother's risk. He says: "One must have the courage to let a doubtful child's life be lost in his hands, rather than subject the mother to an increase of danger."

He states that hæmorrhage occurred after delivery in some cases, although ergotine was given, subcutaneously, during extraction. This was easily controlled by ergotin and iced or hot water injections.

Such maternal results are certainly worthy of attention, for Mueller estimates the total mortality in such cases at not less than thirty-five to forty per cent, and Lusk states that as many as one in four die during or shortly after delivery.

Dr E. L. Partridge, of New York, has recently

reported¹ four cases of this affection, in three of which labor was induced, at full time, by the use of Barnes' dilators, in the other labor occurred spontaneously. Internal version was practised in three of the cases, the fourth, a head presentation, was delivered by the forceps, the child being probably premature, was still born. All the mothers recovered, and two of the children were saved. The relator objects to tampons, and deems the rubber bags safer and more efficient. He states that the cervix is usually soft and easily dilatable, but uterine action does not follow to the same extent as after the dilatation of a healthy cervix, the contractions are generally insufficient to drive the head firmly down, if it presents, and the use of the forceps is difficult, from the necessity of avoiding the placenta, and often from the length and thickness of the cervix, hence, almost without exception, turning is preferable. As associated with the treatment of this condition, a new method of plugging the vagina may be here mentioned, which Dr Chassagny, of Lyons, recently described to the Paris Academy of Medicine. He states, that he had made use of it in two cases of abnormal insertion of the placenta, with the effect of inducing premature labor without hæmorrhage. The apparatus consists of a bladder to which a rubber tube is firmly attached. The empty bladder is introduced into the vagina, and a siphon is then connected with the tube, which allows a flow of water into the bladder from a vessel placed about two and a half feet higher than the pelvis of the patient. To prevent the expulsion of the bladder a cylindrical speculum is introduced after it is in place, which is forced out as the water enters. The act of distension separates valves attached to the sides of the speculum, which by resting upon the internal surface of the vaginal opening, occlude the outlet and prevent expulsion. The pressure of the full bladder causes abundant secretion, and soon induces rapid dilatation of the os and energetic uterine action. It is also stated that, in cases of post partum hæmorrhage, when this apparatus is introduced into the uterus and distended, it closes the uterine sinuses and determines uterine contraction, which occurring, the water is allowed to flow out slowly, until the organ is fully contracted.

PART II

DYSMENORRHOEA

A few remarks concerning a painful female affection, which we are all, and often, called upon to relieve. Our object is not to enter upon a full discussion of the etiology of dysmenorrhœa, but to question the causative influences of some conditions supposed to produce it, to suggest the close alliance of many of its ultimate determining causes, and allude to some methods of local treatment.

Anteversions and flexions have not only been shown by Fritsch, of Breslau, Vedeler, of Christiana, Herman, of London, and others, to be generally normal conditions, but both these and stenoses once deemed principal factors in the production of this affection, are proved to rarely exist to such a degree

to prevent free egress of the menstrual fluid. They are not present in many instances of painful menstruation, and where either, or both, do exist, they are not necessarily attended by it. We may fairly assume that, although at times factors in the production of dysmenorrhœa, they are so only quite exceptionally, and, as Dr Macan remarks, "we must look elsewhere for the cause." Perhaps we may gain a clearer idea of the usual nature of this affection, not only by reviewing some of the morbid conditions and states which have been assigned as causes, but by also noting the treatment which has proved effective, and deducing thence the character of the abnormal conditions which such measures would be reasonably supposed to relieve.

Mr Clement Godson,¹ of London, in some remarks, about two years since, upon what is called spasmodic, or obstructive dysmenorrhœa (though he doubted the obstruction, and prefers the former term), says "It seems tolerably certain that the most sensitive part is the so-called internal os, that portion of the uterine cavity which merges into the cervical canal. I cannot explain the pathological cause why this part is so hyperæsthetic. I know, however, that the morbid sensibility can be overcome by the passage of metallic bougies." This treatment, in his hands, used about midway between the menstrual periods, was quite successful, though in some cases the difficulty returned, and he was obliged to resort to the introduction of intra-uterine silver stems, which proved curative.

This same method, the introduction of metallic bougies, was also employed quite successfully by Dr Mackintosh, of Edinburgh, as early as 1836. His theory was that of obstruction, although he remarks, "I believe it may sometimes depend upon inflammation of the lining membrane of the uterus, as well as inflammation in the substance of the cervix, and on the encroachment of tumors diminishing the calibre of the outlet."

Dr Godson, after advancing valid reasons for not believing obstruction the cause of the difficulty, and yet regarding it as curable by dilatation, asks the pertinent question, "How does the dilatation relieve the dysmenorrhœa?" In reply, he remarks, "I have already suggested that the pain seems due to spasm, which, at the approach of the menstrual flux, seizes upon the uterus, the endometrium of which is in a state of hyperæsthesia. The contact of a foreign body like a bougie or dilator seems to increase the morbid sensibility at first, but as the structures become accustomed to its presence, the spasm subsides. The impression left upon the endometrium, after the withdrawal of the bougies, is such as to render it less sensitive and liable to spasm. How is this explained? This he does not attempt, and it would be difficult upon the assumption that hyperæsthesia alone was the condition of the cervical mucosa. The beneficial action of the bougies would, in this case, always be transitory. But assuming hyperemia to exist, and to cause, or at least aggravate the hyperæsthesia, an attempt at explanation can be offered. The pressure produced by bougies, tents, intra-uterine

stems, dilators, etc., would not only lessen the hyperæsthesia, but effect, by frequent or prolonged pressure, a change in the hyperæmic condition, by producing absorption, or other nutritive modification of the tissues, and thus restore the lining membrane to a normal condition. This idea is in harmony with the results secured by such remedial agents. Dr Munde says that for temporary relief he employs Ellinger's dilator, but for permanent cure, tupelo tents. The latter, by their prolonged pressure and contact, naturally produce more effective modification in the tissues.

What is the nature of the pain in dysmenorrhœa? The spasm induced by the disordered condition of the lining membrane, which was accepted by Dr Godson, might have led him to the conclusion arrived at by Dr C. D. Palmer, of Cincinnati¹, who regards dysmenorrhœa as essentially a neurosis. The writer fully accords with this opinion, and, if he understands Dr P.'s remarks correctly, also with the view that in some cases this neurosis is a result of general health disturbance, of neurasthenia, anæmia, want of development, etc. These often find relief from change of climate and surroundings, or other agencies which improve the general condition, but in other, and perhaps the majority of cases, the neurosis is the consequence of the abnormal condition of the endometrium, the mucous membrane of which is turgid, or hyperæmic, and "its sentient nerves in a state of hyperæsthesia," as a result. Even in cases where shreds are discharged the pain is still neurotic, though the false membrane acts obstructively in producing it. The most plausible explanation of the origin of this latter form, is that of Dr Reamy—that the membrane is not a product of inflammation, but a normal one, that is usually removed by undergoing gradual change through fatty degeneration, and then forms the debris of the menstrual discharge. This solution and disintegration of the membrane is prevented by lessened vital activity, and consequent failure of the normal nutritive changes. This is also the view of Williams and Aveling.

Professor Heinrich Fritsch, of Breslau, in a recent article² upon dilatation of the os uteri, etc., ascribes dysmenorrhœa, in the large majority of young women, to a dilatation and hyper-secretion of the muciparous glands. To facilitate the passage of this over-secretion he dilates the external os, or makes small crucial incisions, snipping off the little lobes thus formed, and then employs free irrigation of the uterine cavity with weak disinfecting solutions for one or two weeks, for the purpose of reducing the over-action, he also dilates the internal os if not already patent. He speaks of other cases occurring in parous women as well as in virgins, and, although he considers most cases of this affection as of complicated origin, states that he has both temporarily and permanently effected cures by a single, and by repeated, use of his dilators.

The local agents which have been mentioned, whether mechanical or medicinal, appear to have produced their beneficial effect by acting upon the

¹ Transactions of London Obstetrical Society. 1881.

² Cincinnati *Lancet and Clinic*. April 8, 1882.
American Journal of Obstetrics. February 1883.

cervical and uterine mucosa. When the bougies or stems fill the cervical canal they cause a determination of blood to the part, so much is this, at times, the case, that in the use of the stem pessary it has been asserted that some bleeding, or even a free discharge, is an indication that the application will be effective. To this same alterative effect must be ascribed the relief obtained from local excitant or mildly caustic applications to the uterine mucosa. Dr Fordyce Barker stated, a few years ago, that he had cured cases of membranous dysmenorrhœa by dilating the os and modifying the condition of the uterine lining membrane by the introduction of pencils of iodoform.

There is another agent, which, from the experience recently published of its results, as well as from its success in the hands of the writer, appears better adapted to produce the nutritive changes in the endometrium necessary for the cure of this affection than any generally employed.

Dr I D Mann says, upon this subject,¹ "The old-fashioned term, neuralgic dysmenorrhœa, still expresses all that is known of the causation of many cases. There is also often an irritable condition of the mucous membrane of the uterine cavity, which, under certain circumstances, evokes painful uterine contractions. In such cases electricity affords great relief, probably by modifying nutrition, and from the direct action of the current upon the terminal nerves. The anode is carried into the os, and the cathode applied over the ovarian regions. If ovarian neuralgia exist it can be relieved by placing the anode over the ovary and the cathode over the lumbar spine. It is inadmissible in ovaritis proper, but tenderness, with slight enlargement and absence of systematic disturbance, is probably due to passive hyperemia, and is often quickly relieved by the same means. The relief in simple ovarian irritation is speedy and very decided."

Dr J S Rockwell² speaks very decidedly of the beneficial effect of galvanism in what he terms spasmodic dysmenorrhœa, and, in cases where great tenderness of the os uteri and the neighboring vaginal walls existed, he ascribes the satisfactory results to the influence of this agent in relieving spasmodic muscular contractions of the os. The results are undoubted, but the writer thinks the action of this agent far more comprehensive. It brings relief, not only by removing the spasmodic action, but, which is of much more importance, by also modifying the disordered conditions which underlie the neurotic disturbance. This is probably effected by what Remak calls the catalytic action of the current.

Over thirty years ago the writer treated dysmenorrhœa upon the stenosis principle, with fair success by dilatation, farther experience convinced him that it was not the narrowness of the passage which lay at the foundation of the difficulty, and experimenting first with faradism and later with galvanism, he ascertained that even better results could be attained without any pressure upon the mucosa of the uterine neck. No record has been preserved of the cases thus treat-

ed, they weremany, extending over a period of at least thirty years. Faradism, with a moderate current was found efficient, but preference in most cases was given to galvanism, the covered anode is placed usually over the region of the lumbar vertebra, at times over the pubis or ovaries, while the cathode, connected with an insulated sound is applied to, or carried into the uterine os, the current should not be strong, from 8 to 10 cells of a Bartlett or Fleming battery, never sufficient to produce pain or annoyance, and occasionally reversed. The sittings, from twenty to thirty minutes, should be repeated at intervals of three to five days between the menstrual periods, until a week before the expected return, then daily for four or five days. After a few applications, the next menstruation will sometimes be attended with less pain, and if continued regularly, the second nearly or quite painless, usually, however, a longer use is required, and in cases of long standing the treatment must be quite protracted. Positive proof is wanting that membranous dysmenorrhœa has been cured by this method, in the hands of the writer, but he feels quite assured, from the description of the discharge that this was effected in some instances.

The deductions which the writer thinks may be made, are, that dysmenorrhœa is a neurosis, sometimes resulting from derangement of the general health, and especially that of the nervous system but more often due to morbid conditions of the lining tissues of the cervix and uterine cavity, which differ rather in degree and extent, than in character or location (always excepting those caused by virulent infection) and which vary from simple hypersecretion of the muciparous glands, to hyperemia and hypernutrition of the endometrium and escu of the uterine tissues.

In the former cases medical and hygienic measures are most essential, in the latter, the morbid conditions are relieved in the earlier stages by mechanical agents, the pressure from which produces a change in the nutrition of the affected parts, and in this stage as well as in some more advanced, by local applications which act upon the same principle and produce a like result. That faradism and galvanism not only relieve spasmodic action, but the latter especially is curative by the power it possesses, when properly and perseveringly employed, to effect such favorable changes not only in the uterine mucosa, but in the submucous tissues, and even in the parenchyma of the uterus itself, to render it a most efficient means of cure in this affection.

THE APPLICATION OF ELECTRICITY TO GYNECOLOGY.

Although the effects of electricity in some of its forms have been already mentioned, as a method of treatment in pelvic affections, and its manner of use partially described, the recent indications of a better recognition of its value and of an increased disposition to investigation of its various powers, will perhaps warrant a few more remarks.

We fully agree with Professor Erb,³ when he urges "the more extensive utilization of a curative agent which has gained for itself a permanent position and the effect of which for its inviolability, energy and

¹ *Lectures on Electricity*, July 27, 1881.
Lectures upon Medical Electricity, 1881.

² *Medical Electricity*, 1881.

³ *Medical Electricity*, 1881.

reliability, are not surpassed by any remedies with which we are acquainted."

In regard to the explanation of its action, we have, at present, little more than hypothesis. After discussing different theories, Prof Erb concludes that our main task should now be to discover the therapeutic resources of this agent in a somewhat empirical manner, as our knowledge of the precise method in which the unquestionable therapeutic results are attained is still defective, and it is premature to limit its use, or always endeavor to make it accord with physiological premises, while we know next to nothing of the molecular disturbances of nutrition.

Professor Dujardin Beaumitz, of Paris,¹ in a lecture recently given, after speaking of the action of galvanism upon the nervous and circulating systems, touches upon the important physiological effects which we may expect to obtain from it in pelvic affections, when he writes: "Under the influence of continued currents, nutrition is seen to improve, and the vitality of tissues is restored with new energy. Although we have no absolutely scientific explanation of this effect upon nutrition, it results probably from a double action. First—that directly exerted upon the trophic nerves, second the action upon the tissue molecules of the organisms whose vital energy is increased." Remak has called this a catalytic action, to distinguish it from the electrolytic, which is destructive, by producing solution of the tissues, while the former promotes circulation and absorption by dilating the walls of the blood-vessels.

The rules for selection of the different forms of this agent for producing the best effects in varied conditions, are not fully settled. The directions of Prof Beaumitz are brief and practical, and are based upon experience. "When we desire to modify cutaneous sensibility and nutrition in general, we make use of static electricity, when we seek to limit the action to a group of muscles, or to restore contractility to certain muscles, we use Faradism, when we wish to modify the molecular action of certain nerves, or give new activity to certain tissues, we employ the galvanic current."

A fact is recently stated to have been determined by careful experiments made by Professor Ziemssen,² viz that the induced current has no influence whatever upon the frequency of force of the cardiac contractions, while the continued current most distinctly affects them. This is of practical importance, especially in case of threatening death from chloroform.

The rules just quoted are, of course, general, and only experience can teach, in our present state of knowledge, which particular form is best applicable to each case. The writer's deduction, from his own use, would be, that galvanism is more generally indicated for gynecological use, although Faradism is efficient in some conditions. Static electricity, made recently more available by improvements in the instrument, does not promise to be as directly useful to the gynecologist, except as an adjunct to general tonic treatment. It has been used, however, efficiently in amenorrhœa by Golding Bird and others many

years since. Dr Blackwood, of Philadelphia, has made use of it as a galactagogue, and states that it is the only form from which he has obtained beneficial results in agalactia.

In regard to the strength of the current used, as well as the frequency and duration of the application, there is considerable difference in the practice of operators. They of course must vary in accordance with the affection treated and the result desired. As a general rule, unless for the check of post partum hæmorrhage, a medium current is sufficient to produce pain or disturbance, and employed daily, or once in two or three days, for twenty or thirty minutes, is preferable, for gynecological use, to a more powerful application for a shorter time. Dr W O Stillman, in a recent article,¹ commending the general tonic effects of galvanism, remarks that its best effects are often not realized from using a too powerful current, and that in nearly all classes of cases he has observed the best results from decidedly weak ones. This is also the conclusion of Drs Beard and Rockwell, and the writer's experience is similar.

The successful employment of these agents in extra-uterine pregnancy and dysmenorrhœa has been already noticed. Galvanism is also efficient in uterine subinvolution and its results. This condition has recently attracted attention as the cause of subsequent and serious uterine derangements.

We can only recognize the physiological change occurring in involution, by the gradual and nearly regular diminution in the size of the organ. When normal, according to most authorities, the uterus cannot be felt above the pubis after the tenth day, and the time necessary for the entire removal of the old tissues and their replacement by new material is estimated by A Serdukoff, of Moscow, as eight to ten weeks. The frequency of subinvolution may be inferred from statistics similar to those presented to the British Medical Association by Dr J Williams. He stated that of 113 deliveries in one year at the London lying-in hospital under his charge, only ninety might be considered as normal in involution at the twelfth day, that is, the uterus had then retired into the pelvis, but this does not necessarily ensure subsequent normal progress. He thinks hæmorrhage, dysmenorrhœa and prolapsus are often results of imperfect involution.

The causes retarding or checking involution are both general and local. The former can often be beneficially treated before as well as after labor. Some of the latter, as retained portions of placenta, or membranes, rents in the perineum or cervix should receive early attention, and will not be here considered. Dr Williams says: "The prevention of subinvolution means three things—an empty uterus, a well contracted uterus, and the absence of fever." An empty uterus being secured, the indication is to produce and perpetuate normal uterine contraction. For this purpose the claims only of electricity will be now noticed, as it promises the best results, not only in the early stages, but even in the later and more confirmed conditions of uterine-hyperæmia and hyperplasia.

¹ *Boston Med and Surg Journal* April 12 1883

² *New York Medical Record* January 6 1883 page 16

¹ *Medical and Surgical Reporter* April 21 1883

² *British Medical Journal* September 2 1882

Its action is both local and general, and in this, as well as in many other affections where galvanism has been beneficial, the result may be ascribed not only to the favorable nutritive changes effected in the uterus, but also to its tonic power in improving general nutrition.

At a meeting of the Paris Academy of Medicine, a little more than a year since, Dr George Apostoli read a paper in which he proposed the use of the Faradic current in all cases of labor, immediately after delivery, for the purpose of producing more thorough uterine involution and averting engorgement or metritis. In cases of normal and full-term labor, he employed it eight or ten times within about six days. In difficult or premature labor, it was continued longer. In thirty-two cases he had found it always harmless, its effect being invariably calming and sedative. It hastens convalescence by securing more rapid and perfect involution, reduces the amount of the lochial discharge, and prevents uterine deviations, but Faradism is not the best agent. Dr Paul Helot, in November, 1881,¹ states, among his conclusions from trials of different forms of electricity, that uterine contractions can be produced by a Faradic current when the interruptions are very rapid, but that the process is painful, and should be restricted to the treatment of post partum hemorrhage, that galvanism with the constant current, interrupted, is the best method, the pain being very slight, and the catalytic action adding to its value.

The testimony of a competent observer, Dr J D Mann,² shows that galvanism will not only secure full involution in an empty uterus after labor, but also that in cases of subinvolution of some duration, it will effect more than any other agent in reducing and removing hypertrophy. He says, in reference to this condition: "It should be treated in the early stage, for when prolonged hyperæmia has produced hyperplasia of the areolar tissue, and the stage is reached when an excess of fibrous tissue preponderates over the muscular elements, absorption becomes a matter of grave difficulty." Again, "In dealing with an hypertrophied uterus, composed of muscular fibers infiltrated with fluid, but sparingly so with cellular growth, any method of treatment which will stimulate the nutrition of the organ, and accelerate the absorption of the morbid products, tends to promote a cure, and such is galvanism." He introduces into the uterus an insulated sound, connected with the cathode, placing the anode over the lumbar spine, a moderate current, 90 dix millevebers, is passed from ten to twelve minutes every alternate day, the current being stable for the first half of the time, and during the last, interrupted at intervals, the strength being then reduced. The patient should remain in the horizontal position some hours after each application. If the uterine wall is so soft as to make the passage of a sound dangerous, a cervical electrode is substituted. He states that in a case recently treated, each application was followed by a temporary discharge, and slight pains of the after pain type.

The uterus was reduced to its normal condition in seven weeks.

Dr Paul F Munde, of New York³, states that he has frequently used the galvanic current to reduce the hyperplastic uterus and bring on the menstrual flow, also, that in a case of large cellulitic exudation in the right pelvic fossa, which produced severe sciatica by its pressure upon the sacral plexus, galvanism, vaginal and post-trochanteric, cured it permanently in less than a week. The same author, in another paper⁴, after mentioning the varied and usually unsatisfactory treatment of uterine displacements, says: "Electricity rationally and scientifically employed for a sufficiently long time, offers chances of cure in cases comparatively recent, which call for a more thorough and persistent trial." Still later, before the State Medical Society of New York, last January⁵, speaking of cervical erosions and their treatment, he says: "In a few intractable cases I have found the negative pole of a galvanic battery applied by a round button to the erosion, the positive sponge being placed over the abdomen, produce a marked tendency to cicatrization. In one such case, grafting of healthy amnion upon the denuded surface occurred to me, but the galvanic current finally effected a cure."

Dr Frank P Foster, of New York⁶, has used it with relief in oophoralgia, and concludes an article thus: "The three great remedies for chronic extra-uterine inflammation, are hot water, iodoform, and galvanism." In a private communication he states that galvanism has appeared to hasten the absorption of pelvic exudates, and that in some cases, where great tenderness existed, it has been the only local measure he has found that did not add to the patient's discomfort for the time being, that in pure ovarian pain, apart from inflammatory conditions, he has generally found Faradization more useful.

The writer would add that he has found Faradization and galvanism very useful in amenorrhœa where general anæmia was not present, and even when the latter existed, and constitutional treatment was obviously required, has found them valuable adjuvants. He has also used galvanism with advantage in cases of cervical and uterine catarrh, and recalls one of long standing, where the beneficial effect was very marked.

We have yet much to learn of the influence of this agent, even in the conditions which have been relieved by its employment, and still more concerning its, until recently, almost unrecognized power of producing favorable modifications in diseased organs and tissues, independently of any electrolytic or destructive action. It certainly deserves attention, investigation, and more careful and thorough trial than has hitherto been accorded.

In the beginning of this paper a reference was made to the recent brilliant advances in gynecological surgery. Prof Heinrich Emsch, of Breslau, begins an article upon uterine therapeutics thus: "The general surgical teaching of recent years forces upon

¹ *Am. J. Med. Sci.*, 1881, 1, 104.
² *Am. J. Med. Sci.*, 1881, 1, 104.
³ *Am. J. Med. Sci.*, 1881, 1, 104.
⁴ *Am. J. Med. Sci.*, 1881, 1, 104.

⁵ *American Journal of Medical Science*, January 1882.
⁶ *London Lancet*, July 23, 1881.

cologists, also, to employ uterine surgery more and more, in place of *medical gynecology*."

Dr Angus McDonald says ¹ "We live in times when thoughtful gynecologists cannot avoid feeling that a tendency to a too frequent resort to surgical and instrumental methods in dealing with woman's diseases is widely, and not infrequently disastrously, present." These are utterances seasonable and pregnant with meaning.

What is to be most earnestly sought by us in the future? The notable success which has attended operative gynecology, since Lister taught the use of carbolic acid, and, by implication, of perfect cleanliness, has had a tendency to call attention away from the less demonstrative, but even more important, investigation of constitutional as well as of local medical methods. Is there not great danger that the patient search for therapeutic resources, general, local, hygienic and all others, which it should be our aim to undertake, will be comparatively neglected?

A successful and brilliant surgical procedure is very attractive, but is not a resort to mutilative surgery, though a great boon to humanity in our present state of knowledge, an avowal of ignorance, or of our inability to cure? While we hail gladly any advance in our surgical art and in the devices for lessening its mortality, we should not forget that, were our attainments in knowledge more thorough and perfect respecting the causation of diseases with which we have to deal,—were our skill in early diagnosis and treatment more sure and extensive, such disordered condition might be arrested and cured before reaching that stage which can only be relieved by the knife of the surgeon.

Our grandest aspirations should lead us to the study of the underlying morbid processes which *precede* graver deviations from the normal state in the pelvic organs. Our endeavor should be to forestall and prevent the latter, not only by rational therapeutics, but by teaching conformity in daily life with nature's laws. "Obsta principis" should be a motto in medicine as well as in morals.

Woman has in action, for a period of about thirty years, a set of organs upon which depend the perpetuation of the race. At the time these organs begin their functional activity, the greatest care is requisite both physically, mentally and morally to secure to them freedom from injurious influences, and that proper balance of development, which shall fit the woman for her after duties. Here is work in preventive medicine for the gynecologist, if he be, as he should be, also physician, of the most important character. At the very threshold of female life a thousand dangers beset the neophyte. To those resulting from climate and constitutional proclivities, are added, in our artificial life, the exactions of the tyrant fashion, in dress, habits and manners, with all their attendant dangers. It is here the physician alone, who, by instruction, warning and admonition, may exercise some influence in restraining and correcting habits and influences, which may render after life but a scene of illness and suffering.

The necessity of careful constitutional treatment in

pelvic disease has often been urged, but does not receive the attention its importance demands. Specialism, when exclusively practiced, is apt to produce narrowness of view, its efforts for cure to be only a variation in local treatment rather than a careful study of the relations existing with functional disturbances elsewhere, which influences, if they do not produce, will intensify the local troubles. Especially is this the case with those educated as specialists "ab ovo." No one who has not received thorough training in general medicine, and has not tested, confirmed and enlarged the knowledge thus attained, by many years of general practice, is fitted for a specialist.

The human body is an entity, not a mere collection of organs. We must consider not only the local expression of trouble in the pelvis, but aim to fully understand and appreciate the relations of the various parts of the organism, to investigate the influences which general disturbances, neurotic, functional or organic have upon the generative system, which influences are sometimes primarily causative, but more often come into action when disordered parturition, or some other deviations from normal function occur. We hail everything which aids to enforce the usefulness of such studies as a harbinger of onward progress.

Such has been the tendency, for some years, of the utterances of Dr Fordyce Barker, whose able paper, of last autumn, upon the constitutional origin of leucorrhœa, and the cure of its resulting local lesions by rational therapeutic and hygiene measures, should be thoughtfully read and re-read by every gynecologist.

A paper has been recently published, by Dr L. C. Boisligniere, of St. Louis, which, in no uncertain tones, calls attention to general conditions as causative in pelvic disease, closing by the statement that our extreme tendency to specialize has led us to attach too much importance to pelvic lesions, and too little to the general condition. In the same direction was also an address of Dr William Goodell, of Philadelphia, which shows that many affections of the "reproductive apparatus" are merely local expressions of their cause, general neuroses.

Time will forbid dwelling upon this all-important subject. It is only by realizing that the physician is larger than, and must include, the specialist,—that we can progress toward the goal we ultimately hope to reach. All that is new is not progress. We sometimes follow the will of the wise light of error into devious paths, from which we return, not always enough wiser for the lesson, to prevent again going astray in another direction. True progress in medicine, as in most human affairs, is not usually by a directly onward course, but rather by following a rising spiral curve, which in time brings us again quite near to the point of departure, but upon a somewhat higher plane.

"Experience teaches slowly, and at the cost of mistakes," and through long tentative efforts only, can we arrive at truth. Patient, protracted, arduous labor is necessary. We must

"Still achieving, still pursuing,
Learn to labor and to wait."

Like the first Napoleon, we must veto the word im-

¹ *Edinburgh Medical Journal* July 1882

possible, When medical gynæcology is thus studied and practiced, the writer has confidence to believe, with the larger general and local therapeutic and hygienic resources which such research will in time develop, with closer attention to any deviation from normal functional conditions, and with the clearer and surer diagnosis which the future will bring, that the time will come when the present "brilliant triumphs" of the surgical gynæcologist will pale before the achievements of his medical co-workers

"Kuhn ist das Muhn,
Herrlich der Lohn"

DIFFUSION OF ARSENIC THROUGH THE BODY WHEN THROWN INTO THE MOUTH AND RECTUM AFTER DEATH

BY VICTOR C. VAUGHAN, M.D., AND
JAMES H. DAWSON, PH.D.

Within the past six months there has been tried, in this State (Michigan), a murder case, in which an interesting and important question was presented to the medical experts. The facts of the case, so far as expert testimony was concerned, are briefly as follows—Mathew Millard was accused of poisoning his wife with arsenic. The lady was taken sick about April 18, 1882. She was seen nearly every day, and sometimes twice a day, by a physician, and twice the attending physician had counsel. The lady had long been subject to uterine trouble (the nature of this trouble does not seem to have been understood by the attending physician). During her illness she vomited frequently, and, indeed, seldom retained either food or medicine. The testimony as to the symptoms manifested was so confused and conflicting that nothing could be made out of it. The attending physician thought she had fever, but he never took her temperature. The lady died May 7. After her death the husband requested the undertaker to embalm the body, so as to preserve it until a casket could be brought from Detroit. The undertaker replied that he did not know how to embalm the body. The husband then asked the undertaker to procure some poison, and he (the husband) would inject it into the body. The undertaker procured a poison (he states strychnine), and the accused claims that, aided by his brother, he injected arsenic suspended in water into the mouth and rectum. He claims to have put about a teaspoonful of arsenic into a teacupful of water, and to have injected one syringe into the mouth and two into the rectum. The syringe which he claims to have used was an ordinary bulb syringe, with rectal tube attached.

One hundred and five days after her death the body was taken up, and the stomach and rectum placed in one jar, and a piece of the liver and one kidney in another, and the jars were sent to Prof. A. B. Prescott for analysis of their contents. (When the officers came to remove the body the husband stated that he had embalmed it.) Dr. Prescott found in the stomach and rectum together about twenty grams of arsenious oxide, and from his analysis he

calculated the amount in the whole liver to be from six to fifteen grains, according to the size of that organ. Later the body was again taken up, and the brain and a part of the muscles of the calf of the leg sent to Prof. Prescott for analysis. In these he failed to find any poison.

The question asked the experts, and the one which this paper considers, was "Granting that the arsenic was injected into the mouth and rectum in the manner claimed, could it reach the liver and other organs outside the alimentary canal?" This was the main question, and on it the experts were divided. Drs. Kedzie, Thomas, and Vaughan held that arsenic so injected after death might reach any or all of the organs of the thoracic, abdominal and pelvic cavities. On the other hand, Drs. Prescott, Duffield, and Gundrum held that arsenic would not diffuse through the body after death.

This seems to be a new question in medico-legal science, and authors have not mentioned it directly. However, whatever testimony can be found in the books certainly supports the negative of the question.

Having determined to investigate this matter, we made the following experiments—

A large musk-rat, which had been caught by one of the students, was killed, and about 50 grains (3.24 grams) of arsenious oxide suspended in cold water was injected with an ordinary bulb syringe with rectal tube attached into the mouth and rectum. The rat was placed in a pine box and buried. After twenty-five days it was disinterred and the various organs removed and subjected to analysis, with the results shown in the following table. In this experiment we did not think to weigh the different organs.

Name of Part Examined	Amount of Arsenic calculated as As ₂ O ₃ found
Kidneys	0.0095 gram
Liver	0.1082
Lungs	1.9252
Stomach and contents	0.0086
Large Intestine	4.0333
Small Intestine	1.0157
Heart	0.507
Brain	0.9900
Total As ₂ O ₃ recovered	7.8078 gram

It will be noticed that the lungs contained a much larger amount of arsenic than the stomach. Evidently the larger portion of that injected into the mouth passed down the trachea instead of going down the œsophagus—indeed, the amount found in the liver is larger than that found in the stomach. It is likely that the poison passed from the lungs into the liver. The amount found in the brain is large, but in the musk-rat the bones of the skull are thin in texture, and are not firmly united.

In the second experiment a cadaver was used. The person had been dead between two and three days when the injection was made. An unweighed quantity of arsenious oxide was suspended in cold water, and this was injected by means of a common bulb syringe, with rectal tube, into the mouth and rectum. The body was laid away in a dry cellar for twenty-five days. The various parts, as given in the table below, were then removed, weighed and subjected to analysis. In dissecting the body it was observed that, although the cuticle had become dried to a certain extent, the internal

touch, and remained in a fair state of preservation. This was true of all the parts removed, except the brain, which was broken down to a semi-fluid condition.

The following table shows the part analyzed, its weight, the amount of arsenic, estimated as arsenious oxide, found, and the per cent of arsenic found in the various tissues.

Name of part taken	Weight of part	Weight of As. O ₃	Per cent of As. O ₃
	Grams		
Right kidney	104	A distinct mirror	
Left kidney	90	00703	00782
Liver	865	08316	00961
Lower lobe of right lung	99	04333	04376
Heart	370	02199	00594
Transverse section of colon	85	02659	03128
Rectum	22	1 65000	7 5000
Spleen	48	00455	00947
Stomach	300	2 11200	70495
Brain	1028	00363	00030

It will be seen that, while the right kidney contained only an unweighable quantity, the left kidney furnished nearly as large a per cent of arsenic as was furnished by the liver. We account for this by supposing that on the right side the liver caught up the greater portion of the arsenic passing down from the right lung, while on the left side the arsenic passed on more freely into the kidney. Contrary to what was observed in the experiments on the musk-rat, the stomach of the cadaver contained a large amount of arsenic, and it seems probable that some of the fluid thrown into the mouth passed directly into the stomach. We were surprised at finding the arsenic in the brain, and the query arises, by what avenue did the poison reach this organ? We noticed that, while throwing the fluid into the mouth at one time, when the bulb of the syringe was very forcibly compressed, a portion of the fluid returned through the nose. It is probable that some of the arsenic adhered to the roof of the pharynx and along the nasal passages, and from thence penetrated the brain.

Independently of our work Prof. Kedzie, of the Michigan Agricultural College, has made an experiment on this question, and we herewith quote his results as communicated by him to one of us in a letter.

He says: "One of our students obtained a cat which had been killed a few hours before by a gunshot wound in the head. Under my directions a quantity of arsenious oxide suspended in water was injected into the stomach and rectum, and the cat was then buried for thirty-one days. At the expiration of this time the animal was taken up, the liver, spleen, heart, and kidneys removed without contact with the contents of the alimentary canal, washed with water, and then oxidized by potassium chlorate and pure hydrochloric acid. The residue was reduced with pure zinc and sulphuric acid and the metallic arsenic collected in a glass tube. From two-thirds of the liver twenty-two milligramms of metallic arsenic was obtained, equivalent to 53 of a grain of arsenious oxide for the entire liver. The heart, spleen, and kidneys were treated together,

and from them I obtained 13 milligrammes of metallic arsenic.

"There were thus obtained from these viscera 35 milligrammes of metallic arsenic, and if the whole of the liver had been used there would have been 46 milligrammes of metallic arsenic, equivalent to 89 of a grain of white arsenic, obtained from viscera which could have received this arsenic only by post-mortem diffusions from the contents of the alimentary canal. This result is directly opposed to the dictum of the older writers on medical jurisprudence, that imbibed arsenic in the viscera is proof of its administration before death."

It will be seen from these experiments that the arsenic was quite as widely diffused through the body as it would have been had it been administered during life, and had it been the cause of death. These experiments also show that in a case of suspected arsenical poisoning, if arsenic has been introduced into the mouth and rectum in the manner above given after death, the finding of the poison in the various organs mentioned in the table will be no proof that the poison was administered during life and caused death. Now, embalming fluids containing arsenic are quite generally and indiscriminately used. They are used by the physician, by the undertaker, and by others who prepare the body for burial. Some throw the fluid into the mouth or rectum, or both, some puncture the abdominal walls with a trocar and then fill the cavity with the fluid, others simply bathe the body with some soluble form of arsenic, or cover the body with cloths saturated with such a solution, others still inject a solution of arsenic into an artery. The most weighty argument yet urged against cremation is that it may be used as a means of covering up crime, but in a case of arsenical poisoning the use of an arsenical embalming fluid may be employed as a more certain method of covering up the crime than the incineration of the body would be. On the other hand, so long as the present frequent use of these embalming fluids continues some innocent person may be accused of committing murder by arsenical poisoning, and arsenic being found in the body, may suffer an unjust sentence.

In all of these experiments, not only were "chemically pure" reagents used, but these were thoroughly tested for arsenic. The tissues were oxidized with hydro-chloric acid and potassium chlorate, and the metallic mirror was obtained by the modified Marsh apparatus of Chittenden and Donaldson (*American Chemical Journal*, Vol. 2, pages 235 et seq.). In every case the gas was allowed to run from one-half hour to two hours (to prove the absence of arsenic in the zinc and sulphuric acid) before the substance under examination was added.

UNIVERSITY OF MICHIGAN, June, 1883

THE MEDICINE AND SURGERY OF THE WINNEBAGO AND DAKOTA INDIANS

BY F. ANDROS, M.D., MITCHELL, DAK.

The following interesting account of aboriginal medical art is just received from Dr. F. Andros,

now of Mitchell, Dakota Territory, but formerly well-known and eminent at McGregor, Iowa. Dr. Andros is said to be the grandson of Sir Edmund Andros, the British governor of New York in colonial times. He is now over eighty years of age, but writes a firm hand, and is still actively engaged in practice. He has lived nearly all his adult life in contact with the Indians. Among the Winnebagoes he was a "great medicine man," and was admitted to the lodge of their secret society, which has its signs and passwords, and is in many respects like some of the secret orders among the whites. Being thus closely intimate with the Indians at a very early day, before they were much modified by contact with civilization, his testimony as to their original medical and surgical methods has peculiar historical value.

EDMUND ANDREWS, M. D.

The Indians' knowledge of anatomy is very limited, and is mostly comparative. They have a name for all the different organs of the body. They have no idea of the functions of the lungs in the oxygenization of the blood, or of the kidneys in conveying off the nitrogenous elements from the system, and yet they know from observation that the suspension of the functions of either will be fatal to life. They are acute observers, as illustration, when a new beaver lodge is discovered, if successful in capturing the mother beaver first, they determine the number of young beavers to be looked for in the lodge. And thus they determine by the number of eschars on the ovaria. They have no definite idea of the circulation of the blood, and yet know that the heart is the organ which propels the blood through the body.

As regards surgery, they never amputate.

In large incised wounds, the parts are carefully brought together and secured with sutures of animal sinew. These they remove in six or eight days. The sinew, smoke dried, is not absorbed. Union by first intention is prevented by putting a thin piece of bark between the edges of the wound, believing that the wound should first heal from the bottom. In 1853 I saw an Indian stabbed, the knife entering the lung. I dressed the wound, and had union by first intention. A few days after I saw the case again, and found the wound had been opened and air was again bubbling from it. Another case. The abdomen wounded with a knife, bowels protruding, replaced the bowels, union complete the next day. Three or four days later the wound was opened. Both patients died, victims to their ignorance.

In gunshot wounds they never explore for the ball, and never attempt the removal unless very close to the surface. They carefully clean the wound and apply a poultice of slippery elm bark or the young sprouts of the brasswood, powdered and soaked in water until quite soft. The wound is kept moist with a mucilage from the bark, and is frequently cleansed by suction with the mouth.

They dress a fracture very neatly. First procure a cylinder of bark from a tree about the size of the broken limb. This is soaked in water till quite soft, then carefully adapted to the limb and suffered to dry, first securing it in position with strings of bark. They never use extension or counter extension and

yet you seldom see shortening or deformity. I once saw a case of compound fracture of the leg, four or five inches above the ankle. Both tibia and fibula were broken, and the soft parts much lacerated. A semi-cylindrical piece of bark was procured, considerably larger than the limb. This was cut deeply on both sides at the knee, so as to bend to a slight inclined plane. This cylinder was filled with soft clay and the limb embedded in it, from the heel to the groin, except the wounded portion, which was left open. The wound was kept clean and dressed with the thick mucilage of elm bark. The patient made a rapid recovery, with but little shortening.

This case was treated by the Indians themselves. I being a simple "looker on in Venice."

As regards the bite of snakes and the stings of insects, they seem to have no general remedy, each band usually employing a different remedy. The most common treatment for the bite of the rattle-snake is first to suck the wound with the mouth and apply the bruised leaves of the common plantain, or black snake root. They use no internal remedy. For the sting of bees or wasps they use the wild onion bruised, which, from experience, I know almost instantly relieves the pain.

Hydrophobia is not uncommon, for this they have no remedy, put the patient in a separate lodge and carefully guard him till relieved by death.

Mitchell, D. I., July 20

The Indian possesses a constitution of wonderful recuperative power. They are subject only to those diseases that depend on atmospheric vicissitudes and malarial exhalations, excepting eruptive diseases—small-pox and measles, and I am inclined to the belief that those diseases are from contact with the whites. Scarletina, diphtheria or typhus or typhoid fever I never saw among them, their mode of life being unfriendly to their development.

The fevers common among them are intermittent and remittent. For the treatment of these they have a routine treatment—an emetic or cathartic, followed by a vapor bath, from which the patient is immediately plunged into a cold one, or, if a pond or pool of water is not convenient, a sponge bath using cold water, applied with a wisp of grass, after which they are covered with blankets or skins, and diaphoresis kept up for some time by the use of warm drinks—as the calamus, or some of the varieties of the mints. As a tonic they use the bark from the root of the different varieties of the willow (salix) in decoction, also the bark of the aspen, poplar tremuloides. It is rarely that they die from remittent fever. They also often use the linnet, bleeding without regard to sex, age or physical condition. This practice I think they have borrowed from the whites. For this operation they use a thin scale of flint, fastened by screw in a stick and driven into the vein as the horse farriers used the fleam years ago. In pneumonia, bleeding is the most common remedy. In rheumatism they rely almost wholly on the vapor bath, yet I have seen the emmenagogue (black cohosh) used by them in decoction. The vapor bath is a small tent made by bending a willow pole over each other and nailing the ends to the ground.

covering this frame with skins, several large stones being heated and placed inside. The patient is placed within, and water sprinkled on the stones, soon "raising steam."

They have no idea of the sympathy which may exist between the different organs, but locate the disease wherever the pain may be. I have frequently had them call on me for headache medicine, side-ache medicine, belly-ache medicine, etc., making no greater mistake than I have seen made by men with M.D. attached to their names, prescribing for symptoms in place of the disease. They use quite a number of the indigenous medicinal plants, having learned from experience that certain plants will produce certain effects, that *chimaphila* will increase the flow of urine, and that a decoction of the bark of the butternut (*juglans*) will produce a cathartic effect.

They have one remedy for mucus enteritis which is deserving of a trial. It is the bark of the button-wood, or american sycamore (*platanus occidentalis*). It is used in decoction, and is used *ad libitum*. Its taste slightly resembles chocolate, is very slightly astringent, and powerfully diaphoretic.

During the autumn of 1853 dysentery prevailed among the soldiers, and also among the Indians, as an epidemic. I watched their treatment, and found they were more successful in the treatment than I was, whether owing to their great recuperative powers, or to some other cause, I will not say. Since that time I have used the same remedy in my private practice, in conjunction with the usual remedies, and was pleased with the result. On this bark they relied solely.

Cupping seems to be one of their old remedies. You will scarcely see an Indian of any age who has not the scars of scarification about the temples or neck. The operation is performed by scarification with a scale of flint, and the blood extracted by suction with a horn by the mouth of the attendant, used particularly in inflammation of the lungs and headache. They pay no attention to diet, the sick using the same food as the other occupants of the lodge.

For poisons, snake-bites, and the stings of insects, they have no reliable remedy. The most important is suction of the wound with the mouth. I observed that the different bands each had its particular remedy. The most common are the senega snake-root and the common plantain (*alisma plantago*) and the yellow dock (*rumex crispus*). The bite rarely proves fatal, either among the whites or Indians. When death ensues it is from hæmorrhage, bleeding from the nose and gums. The poison seems to defibrinate the blood. I have probably treated over fifty cases of rattlesnake-bites, and never saw but one fatal result. Many of the recoveries were long and tedious.

The general treatment is like the treatment of typhus fever, an expectant and supporting treatment. Ammonia is one of the most valuable remedies in the early treatment, both internally and externally to the wound. Whisky, the vaunted remedy, is of very little account after the first few hours, except given with milk as a supportant. — (This is wandering from my subject, but, as I told you before, my remarks would be disconnected.)

The following is a list of the remedies in most common use.

The cambium of the different varieties of the pines, as expectorant and also in gonorrhœa, *symplocarpus foetidus* (skunk cabbage), expectorant and used in asthma, *Sambucus canadensis*, used as a poultice, *Alisma plantago* (plantain), in snake bite and poison from the ivy or poison sumach, *Sassafras*, expectorant, *Chimaphila Maculata*, diuretic, *Ulmus (fulva)*, emollient, demulcent, *Asclepias Tuberosa*, emetic, *cortex Salicis*, different species, febrifuge and tonic, *Leptandra virginica*, snake bite, *Polygala senega*, snake bite, *Rumex crispus*, snake bite, *Acorus calamus* internal fever, *Lycoperdon bovista* (puff-ball), styptic, and in wounds to arrest hæmorrhage. *Artemisia canadensis*, tonic, *Cortex Quercus*, tonic and astringent, *Geranium maculatum*, astringent, used extensively in diarrhœa. The bark of the button wood (*Platanus occidentalis*), used in dysentery. As a stimulant they use a plant, in common parlance called horse mint, and named by botanists *Monarda punctata*, which is of the same genus as the well-known Oswego tea. This I saw them use in cases of Asiatic cholera, which prevailed among them, using it both internally and externally—very hot. I think they were as successful as I was in the treatment.

Eruptive diseases are almost always fatal among them, the eruption being repelled by cold applications, to which they invariably resort in all cases of increased heat of the surface.

Measles is fully as fatal as small-pox among them.

If you wish to ask any particular questions, shall be happy to answer, if able to do so.

Hoping to have the pleasure of a personal interview sometime during the summer,

MEDICAL PROGRESS

A RAMROD IN THE BRAIN—RECOVERY.—This is a most graphic and interesting account of a case, the details of which would take up far more space than we can afford to give. By the discharge of a carbine an iron ramrod passed into the right side of the back, near the fourth dorsal vertebra, upwards along the thorax, through the deeper tissues of the right side of the neck, penetrating through the skull and brain, and projecting 30 cm. outside of the skull on the left side of the head. By cutting down upon the wound in the neck, the ramrod was extracted after striking the projecting end (through the back) with a hammer several times, and the patient recovered with loss of sight in the right eye.

The patient, Mutz, was a 17 year old man servant, who was shot at a Schutzenfest by a young peasant who stood directly behind him, the ramrod in the barrel of the carbine, and by dropping the butt suddenly upon the ground the gun was discharged. The first movement made by Mutz after he was shot, was a tottering without falling, and seizing the ramrod with both hands. A comrade sprang to him, put out the fire of his clothing at the back, and laid him on the grass, where he remained ten minutes

motionless, without speaking and with his eyes shut. There were two different ineffectual attempts made by the bystanders to draw the ramrod out of the wound, raising his head and shoulders from the ground, and dragging him a short distance, following this came nausea, vomiting, a deep sigh and intelligible answers to questionings.

He was first seen by Dr Fischer at the hospital several hours after the accident, when 30 cm of the screw end of an iron ramrod projected from the left side of the skull, 8 cm distant from a line perpendicular to the left supra orbital foramen, and so tightly wedged that not a drop of blood escaped. The tissues about the angle of the lower jaw on the right side were swollen and very painful on pressure, the finger passed deep into the pharynx, found nothing abnormal. Between the right shoulder-blade and spine, on a level with the fourth dorsal vertebra, was a gunshot wound of the size of a ten-penny piece, with blackened edges, from which oozed a thick bloody fluid. He lay exhausted and apathetic with closed eyes, putting his hand now and again to the right side of the neck, but when spoken to gave proper answers, complaining of headache, pain in the right side of the neck, and of not seeing so well as usual, the pupils were dilated. From the right nostril a bloody colored fluid was discharging. He vomited a tablespoonful of dark red blood, and his sputa was bloody. Pulse 60, respiration normal.

The question now was how to extract the ramrod, —in the direction of entrance or from the wound of exit in the skull. As these ramrods have a thick knob at the end, it was decided to cut down on the course of the missile in the neck and so withdraw it. The operation was performed without narcosis, by an incision 6 cm long, made from the angle of the lower jaw, on the right side to the anterior border of the sterno mastoid muscles, the knob of the ramrod being found lying deep beneath the upper part of the muscle near its posterior border. The greater vessels were not exposed—not much hæmorrhage, only one small artery to ligate. An incision was then made down to the point of exit, and the ramrod was found to be immovable, with no fissures in the bone about it. A hammer was used for striking careful blows on the exposed end, when after a few blows the rod moved, but in the direction of the original wound, and threatened to pass into the soft parts. By changing the position of the body, and passing elevators under the projecting part, he was enabled finally to remove it. The patient was conscious during the operation, and at its close his pulse was 72, he complained only of headache. The ramrod was 50 cm long, varying in thickness from 6 to 7 mm. On the 68th day Mutz was discharged as cured.

Symptoms—Brain —At the moment of being shot, a tottering, in the first ten minutes he lay motionless, speechless, eyes closed, with a deep rattling in the throat. After an hour he answered questions correctly. Three and a half hours later, on his entrance into the hospital, the period of depression was over. During the operation he was perfectly conscious. After the removal of the ramrod there must have been some bleeding along the track from the wound

of the dura mater at the points of entrance and exit, which was unimportant, as no symptoms of compression of the brain followed. The headache which ensued may be traced to this cause and not to meningitis, as there was no fever. This, on the third day, was severe, and on the eighth and ninth days was accompanied with constipation, then became less marked, and disappeared on the nineteenth day. Vomiting occurred only the first night and the day after the operation. Sleep became natural after the fifth day. There was no paralysis. The pulse fell to 52 on the fourth day. On the twenty-eighth day and after he could sit up for an hour at a time. His memory failed him as time passed, he could remember everything up to the time of receipt of the injury, but his being laid on the grass, brought to the hospital, and being operated on he had forgotten.

Discharge of the Cerebro-Spinal Fluid from the Right Nostril —This continued for twelve days, at first continuously and bloody, then intermittent and of a yellow color, at times passing into the pharynx and coughed up. It never came from the left nostril.

Anæsthesia of the Right Eye —On his entrance into the hospital he complained of not seeing well, both pupils were dilated and nothing abnormal was noticed. The following day anæsthesia of the right eye, with perfect vision of the left, was diagnosed. At the sixth week a commencing atrophy of the right optic nerve was determined by the ophthalmoscope.

Suppuration of the Right Ear —On the twelfth day Mutz complained of a pricking in the right ear, from which a slight discharge came. He heard the watch only 12 cm removed but very well when pressed against the bone. On the seventeenth day a suppuration was established, which soon stopped under treatment by pulverized boracic acid. In the fifth week he heard the watch one half meter distant. In the seventh week both ears were alike.

The sense of smell was normal.

Temperature and Pulse —On the morning of the operation the thermometer was 37.9, in the evening 38.3. In the first two weeks the morning temperature was usually 37.6, and in the evenings 38.3. In the next five weeks, morning 36.8, evening 37. Only once, on the ninth day, did the thermometer indicate anything serious. On that day the record stood, morning 38.8, midday 39.9, evening 39.9. An operation from the bowels relieved a constipation of three days standing, and the temperature was reduced. The pulse gave no special indications. The character of the patient seemed to undergo no change. His employer described him as a very good peasant, who took his punishment quietly. In the hospital he seemed phlegmatic, and careful of his health.

Direction of the Wound —After considering carefully the various symptoms, and experimenting upon the cadaver, Dr Fischer comes to the following conclusion as to the course of the wound. The ramrod entered the right side opposite the fourth dorsal vertebra, between the splenius cervicis levator anguli scapula without perforating the of the thorax, and passed up the

nal jugular vein and common carotid artery, and behind the sterno-cleido-mastoid, posterior belly of the digastric, stylohyoid, and stylo-glossus muscles. It entered the base of the skull behind the posterior border of the middle root of the pterygoid process, went through the right sphenoidal sinus and the lower portion of the alæ orbitalis, through the right optic canal, lacerating the optic nerve, and passed from the border of the sphenoid into the cranial cavity. Here the ramrod struck the right gyrus rectus, and then passed freely for some distance between the two hemispheres, on the left side of the falx cerebri, then passed between the two gyri fornicati, just in front of the anterior border of the genu of the corpus callosum, and passed through an extent of 3 cm in the left gyrus frontalis superior, out through the frontal bone. The track of the wound is 35 cm long.—DR GEORGE FISCHER, *Deutsche Zeitschrift für Chirurgie*, XVII, B, 5 and 6

CASE OF SEPARATION OF THE SYMPHYSIS PUBIS—This occurred in a sixteen-year-old girl, who was thrown from her horse whilst riding astride on a man's saddle, and dragged some distance. When seen, a little over six weeks after the accident, she was found to be suffering from bed-sores on the back and buttocks, with a sinus in the left groin passing close to the labium. There was a copious, thick and very fetid discharge from the vagina—gritty when rubbed between the fingers. There existed a separation of the pubic symphysis of $1\frac{1}{2}$ inches. On introducing the finger into the vagina the roughened edges of the pubic articulation, denuded of cartilage, could be easily made out. The finger in the vagina could be plainly felt by the finger of the other hand, placed on the mons veneris, nothing but skin intervening between the two. The orifice of the urethra was dilated and in an altered position. Six months after the accident the finger, introduced into the vagina, encountered firm bands of tendinous substance, and uniting the pelvic articulation, part of the edges of the pubic articulation could still be felt, but smooth and covered by membrane. When first allowed to walk the girl felt "loose," and a feeling as though she was falling asunder. This only exists in a very slight degree later, and is quite counteracted by a firm band round the hips. Incontinence of urine from the first and cessation of the menses.—J. S. HAYES, M.D., *Australasian Medical Gazette*, April 15, 1883.

A CASE OF CHYLOUS ASCITES—Mr Kien communicates to the Société de Médecine de Strasbourg, as reported in the *Gazette Médicale de Strasbourg*, the case of an old maid of 50 years of age who, suffering from abdominal dropsy, had been tapped by him eight times in four months, drawing off each time some four gallons of a fluid absolutely like milk in color and density. He was unable to detect any abnormal condition in the cavity itself, which was easily palpated after the removal of the fluid, or in the abdominal viscera. Prof Recklinghausen made a microscopical examination of the fluid, and declared the case to be one of chylous ascites. He found lym-

phatic cells—leucocytes—in different morphological conditions, some fibrinous flakes and some large cells adherent to each other in groups of two or three, with a conformation which *might* indicate cancer. He considered the fluid might come from a rupture of the chyliferous vessels of the intestine or mesentery.

PHYSIOLOGY IN ENGLAND—Judging from the report for 1882 of Mr George Burk, the Home Secretary, who grants licenses for vivisections, physiology must be seriously on the decline in England. The *British Medical Journal* tells us (June 16, 1883) that but twenty-six persons performed experiments, and that but between twenty and thirty animals, mostly frogs, were used. How far would twenty or thirty frogs go in a well appointed physiological laboratory?

The same journal tells us, however, of the appointment of Dr Michael Foster as Professor of Physiology at Cambridge, with Dr Alexander McAlister as Professor of Anatomy in place of Dr Humphrey, and that physiology is more and more vindicating its place as the scientific basis of that part of medical science which is not purely empirical. Cambridge University now proposes to extend elementary biology over two terms, and to make it form a more complete introduction to general morphology. Botany, comparative anatomy, and much of the old *materia medica* are being laid in the background as no longer compulsory studies.

RAPID FORMATION OF BLOOD TUMOR IN LEFT LABIUM MAJUS DURING LABOR—SPONTANEOUS RUPTURE—EXCESSIVE HÆMORRHAGE—Dr Morris A. Rodger, (*Canada Medical and Surgical Journal*, July, 1883), describes the formation of this tumor as coming on some time after the commencement of labor-pains,—when first noticed it was the size of a pigeon's egg—then increased rapidly with each pain to the size of a foetal head and burst before the child's head had passed the brim of the pelvis. The rent took place on the inner side of the labium, and was about three inches in extent, running close down to the rectum, but not injuring the perinæum proper—bleeding was very profuse and not controlled until after a forceps delivery of the child, when fine silver wire sutures were used, passing them deeply into the neighboring tissues. There was no history of swelling in the legs, or elsewhere, and no varicosities of the perineal veins. The patient did well.

REDUCTION OF BACKWARD LUXATION OF THE THUMB—Dr J. F. Hubner (*Philadelphia Medical Times*, July 14, 1883) treats this condition by separating the two heads of the flexor brevis muscle with two uterine tenacula, bending their ends to a very acute angle. He inserts them by holding them as nearly parallel as possible to the metacarpal bone, and by a circular motion inserts the curved end of the tenaculum, keeping the point subcutaneous. Next introduce the tenaculum under the head of the muscle in the same manner as you would a tenotome, then, turning the point upward, you have the head of the muscle in the elbow of the tenaculum. Insert the second one in the same manner. Now push the

heads of the muscle asunder, and allow an assistant to push the phalanx in place. In order that the tenaculi may be withdrawn easily, care must be taken not to insert them too far from the normal position of each head of the muscle, and in withdrawing to make a circular sweep of the handle.

In the report of the Committee on New Remedies to the State Medical Society of West Virginia, Dr J M Lazzell called attention to the somewhat peculiar action of an old remedy. Tinctum digitalis, long continued, produces a peculiar and remarkable kind of sweat over the whole body. This is continuous and will remain several days after discontinuing the remedy. The skin is bathed in perspiration, and is shriveled and corrugated like a washerwoman's hands.

CYSTICERCUS IN THE EYE—This parasite has been found imbedded in the fundus of the eye, to the outer side of the left optic disc and projecting into the vitreous, overlapping and obscuring the inner third of the area of the optic papilla. Dr W J Collins reports it in the *Lancet* as being present in a girl of six. It has produced intense hyperæmia with effusion, and severe headache. There is no movement as yet, and there are no indications requiring immediate operative interference. Probably sooner or later the eye will be lost.

DANGEROUS SODA WATER—Dr George Hay (*Philadelphia Medical Times*, July 14, 1883) has been examining the soda water of a particular druggist, who himself called his attention to it, and found the water to be dangerously impregnated with copper, existing as carbonate of copper, held in solution by excess of carbonic acid, and derived from the saturators, which are in all cases made of that metal and generally coated inside with tin, which gets dissolved in time and exposes the copper.

NEW INVENTIONS

BLOCH'S MAXIMUM THERMOMETER—This instrument is provided with a system of magnifying lenses, which are so attached to the tube, as to glide over its surface and allow a ready reading of minute subdivisions of the degrees.

BURQ'S CIRCULAR THERMOMETER, WITH MAXIMUM AND MINIMUM INDICES—This thermometer is intended to measure surface temperatures, and has connected with it a series of all the malleable metals which Dr Burq calls the metalloptic "gamut" to determine the thermic variations corresponding to metallic sensibilities.

A NEW DRAINAGE TUBE—By J Ward Cousins, M D, London, *British Medical Journal*—This is an elastic tube which is enclosed at one end in an elastic air-pad, to which a fine tube is attached, and by this the pad can be inflated to the required extent. The inflating tube is then securely closed with a knot or ligature. It is especially serviceable in cases of em-

pyema treated by free incision for, when the pad is inflated, it becomes fixed in position between the ribs, forms an elastic wedge which prevents the escape of fluid around the tube, and exerts a comfortable and even pressure in sustaining the open and dilated condition of the incision.

PROFESSIONAL REWARDS—The *Gazette Hebdomadaire des Sciences Médicales de Montpellier*, for June 30, 1883, tells us that Dr Monnet last January, while passing through a certain street, went to the assistance of a drunken man whom he saw fall and injure his head. He had him taken to an apothecary's shop, gave him a medicinal mixture, and dressed his head, for which he received a severe blow with the fist. Ten minutes later the drunken fellow was walked out of the shop by a policeman. As the doctor was about to follow, the apothecary demanded 36 cents of him as the price of the mixture, which the doctor refused to pay. A few days later Dr Monnet received two letters, one from the apothecary summoning him before a justice of the peace, the other from the police authorities, requesting him to appear and give information regarding the drunken man. The doctor, being a very busy man, neglected to pay proper attention to these letters. Consequently, in March last an officer presented himself with the intention of attaching the property of Dr Monnet, and he found that by this time he had to pay for the sake of the law the sum of \$9 96.

THE CONFISCATION OF THE ENTIRE ISSUE OF ONE NUMBER OF A MEDICAL JOURNAL—The *Medizinisch Chirurgisches Central Blatt* of Vienna, has on its No. 6, for February 9, 1883, the words "Second edition" which it explains by the following notice:

"To our readers. The whole edition of No. 6 of our publication was confiscated on account of an editorial on the ministerial decree concerning the titles of surgeons. We have prepared this second edition by leaving out the incriminating article, which we now send to our subscribers, unfortunately somewhat delayed."

A similar action has been taken by the authorities with regard to a recent number (June 2) of the *Wiener Medizinische Wochenschrift* which offended by remarks concerning the botanical garden in connection with the Joseph Akademie. The editors promise a second edition without a repetition of the offense.

THE MORTALITY OF THE PRINCIPAL CITIES OF EUROPE for the first quarter of the current year. London, (nearly 4,000,000) 22.1 per 1,000. Measles, scarlatina and whooping cough have influenced this rate greatly. St Petersburg, 40.6 per 1,000. Typhoid fever and diphtheria have prevailed with great intensity.

Berlin, 24.3. Croup caused the death of 60, in 1,200,000. Brussels, 25.7. Paris, 27.3. Stockholm 27.8. Vienna 31.1. Madrid 36.4. Me. U. alone gave 402 deaths in a population of 4,000,000.—*Paris Medical*

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, AUGUST 4, 1883

YELLOW FEVER—We gather from the secular papers the following facts regarding measures for preventing the introduction of ships and other things infected with yellow fever, into the seaports on the coast of Maryland and Virginia. The United States Hospital Marine service, under the direction of Surgeon General J. B. Hamilton, established a quarantine and sent the hospital barge Selden to Hampton Roads for the reception of yellow fever sufferers. Infected vessels were ordered to anchor about six miles out from Ocean Beach and Fortress Monroe, until relieved by the health inspector. The boats were thus brought in plain sight of the many visitors at the resorts, and caused so much uneasiness among them that an appeal was made to Secretary Folger. On consultation with the Surgeon General it was decided to call a meeting of the health authorities of Baltimore, Washington, Richmond, Portsmouth, Norfolk, Ocean View, Newport News, and Fortress Monroe, to discuss the general situation and decide upon some plan which would insure concert of action on the part of all places concerned in the emergency thought to confront them, and to obtain the benefit of all available knowledge as to the best locality for the establishment of quarantine grounds. The conference was held July 28, at Fortress Monroe. There were present Surgeon General Hamilton, Dr. Smith Townshend, President of the Washington Board of Health, Dr. George H. Benson, health commissioner of Baltimore, Dr. J. G. Cabell, President of the Board of Health of Richmond, Hon. H. Libbey, member of Congress from the second district,

Col. Loder, commandant at Fort Monroe, Capt. Evans, U. S. N., lighthouse inspector, Gen. V. D. Gronor, member of the Norfolk common council, the mayors of Newport News, Portsmouth, and Norfolk.

Remarks were made by those who objected to the anchorage of infected vessels off Fortress Monroe. It was thought at the conference that Fisherman's Inlet would be the best location for the quarantine station. It was resolved that "the Secretary of the Treasury be requested to establish a rigid quarantine between the capes immediately, and to continue as long as he thinks necessary," and "that the Governors of Virginia and Maryland be requested to instruct pilots of these waters to pilot all vessels coming into or through these capes from foreign ports to a point opposite the quarantine station, wherever it may be located."

Pilots present inquired whether they would be allowed to go home after piloting in a vessel with yellow fever on board. The Surgeon General said that he did not think the pilot on an infected vessel should be allowed to come ashore for several days after having taken a ship into quarantine. The United States health officer in charge must determine when it would be safe for them to leave. This was not agreeable news to the pilots, although one afterwards admitted having previously caught the fever while piloting an infected vessel into quarantine, and that he had carried the disease on shore.

The action of the conference met with the approbation of Secretary Folger. Surgeon Henry Smith and Assistant Surgeon Glennon, of the marine hospital service at Norfolk, were sent to Fortress Monroe in order to carry out the orders of the Surgeon General in reference to quarantine. The hospital barge Selden was taken to Fisherman's inlet, above Cape Charles, where the quarantine station is established.

A steamer arrived at quarantine, off Baltimore, on July 27, with four cases of yellow fever on board. She was direct from Vera Cruz, and had lost three by death during the passage. A seaman belonging to a brig from Havana died from the fever on July 25, at the Lazaretto station, near Philadelphia. It is evident that under the superintendence of the Surgeon General of the Marine Hospital service, Dr. J. B. Hamilton, the efficacy of quarantine regulations in preventing the introduction of yellow fever will be tested as fully as the existing laws of the general Government will permit.

PROGRESS OF CHOLERA—During the past week, intelligence from Egypt to July 31 shows that the

epidemic had probably passed its crisis, as the number of deaths daily in Cairo and several other cities had diminished more than thirty-three per cent. In the *British Medical Journal* for July 21, 1883, is a report by Dr J Mackie, the British consular physician at Alexandria, in reference to the origin of the disease at Damietta, the place where it first made its appearance in Egypt the present season. From the facts stated in the report, it is evident that all the local causes known to favor the development of an epidemic of cholera were present in a high degree of perfection, not only in Damietta, but throughout the whole delta of the Nile. In addition to the ordinary and well known uncleanly and unsanitary condition common to all Egyptian cities, the river from which the inhabitants take their supply of water had been thoroughly contaminated with decomposing animal matter, from having been made the receptacle of the bodies of numerous animals dead from cattle disease or bovine typhus, which had been prevailing among them severely for several months. The atmospheric temperature was also unusually high at the time of the cholera outbreak. Dr Mackie, up to the time of making his report, had not found any reliable evidence that the disease had been introduced into Damietta from the East or any foreign source. Notwithstanding some rumors to the contrary, there is no evidence that any cases of epidemic cholera have yet occurred in England or any of the European countries. But while all eyes have been turned towards Egypt as the focus from which the cholera plague might speedily find its way to other countries, the news comes to our National Board of Health that it is already on this side of the Atlantic, twenty-four deaths from cholera having been reported as occurring at Rio de Janeiro during the week ending July 26, 1883.

DR ROSWELL PARK, who has been in Chicago since 1876, and until recently was Demonstrator of Anatomy in the Chicago Medical College, has received the appointment to the chair of surgery in the medical department of the University of Buffalo, and will in a few weeks move to that city, where his new duties await him. We congratulate the Buffalo school in securing a man of ability, a good scholar, and apt teacher.

THE *Journal of Psychological Medicine and Mental Pathology*, has ceased its publication. It is one of the old journals connected with the last generation, and was first issued under the editorship of the late Dr Forbes Winslow, Sr.

SOCIETY PROCEEDINGS

REPORT OF THE SECRETARY OF THE SECTION ON PRACTICE OF MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY, FOR THE REGULAR MEETINGS, JUNE 5, 6, 7, 1883

On June 5, 1883, at 2 30 P M, the Section met in the chapel of the Young Men's Christian Association, 349 Euclid Avenue—Dr J H Hollister, of Chicago, Illinois, in the chair, and J G Lee, M D, of Philadelphia, Pennsylvania, Secretary.

After some preliminary words of welcome by the Chairman, Dr T W Miller read a paper on the "Treatment of Yellow Fever," by Robert S Murray, M D, of the U S Marine Hospital Service.

The paper elicited an interesting discussion, in which several members of the Section participated (See a very brief abstract appended to the paper in the number of this journal for July 28, 1883). On motion, the paper read by Dr Murray was referred for publication.

Dr William Morrow Beach, of London, Ohio, then read an interesting paper on "Milk Sickness." Dr A B Palmer, of Michigan, made some interesting remarks on the subject, after which the paper was referred for publication, and the Section adjourned.

On June 5, 1883, at 2 30 P M, the Section convened at the Opera House, 355 Euclid Avenue—Dr J H Hollister in the chair, and Dr J G Lee, Secretary. Dr Thomas N Reynolds, of Detroit, Michigan, read a paper on "The Alimentary Canal in Bronchitis and Phthisis." After a short discussion, the paper was referred for publication.

Dr W F Belfield, of Illinois, then delivered a lecture on the "Germ Theory of Disease," accompanied by microphotographic illustrations.

At the conclusion of the lecture, on the motion of Dr Austin Flint, Sr, of New York, a vote of thanks was awarded by the section to Dr Belfield for his interesting and valuable address. The germ theory of disease was further discussed briefly by Drs Austin Flint, Jr, of New York, and A B Palmer, of Michigan.

Dr John V Shoemaker, of Philadelphia Pa, then read a most interesting paper on "Mechanical Remedies in the Treatment of Skin Diseases."

On motion, this paper was referred to the Committee on Publication, after which Dr I B Luckerman, of Ohio, read an essay "On a New Method of Procuring Pure Pancreatic Juice, with Exhibition of Animal."

On motion of Dr Hollister, the thanks of the Section were voted to Dr Luckerman and his paper was referred to the Committee on Publication.

On motion, the Section adjourned.

On June 7, 1883, at 2 30 P M, the Section met in the Opera House, on Euclid Avenue. Dr J H Hollister in the chair, J G Lee M D, Secretary.

Dr Wm M Beach, of Ohio, begged leave to state that his friend, Dr H G, of Chicago, being unable to be present, his paper on "Essential Fever" was referred for publication.

manded in its Treatment?" which had been entrusted to him, would have to be referred to the Committee on Publication, without being read

In accordance with the rules of the American Medical Association, the Chairman announced that he would appoint Dr H A Johnson, of Illinois, Dr A B Palmer, of Michigan, and Dr Walter Hay, of Chicago, members of the committee to which the papers not read before the Section should be referred, Dr Johnson to act as chairman

Dr Henry A Martin, of Massachusetts, being momentarily absent, his paper on "Vaccination and Propagation of Vaccine Virus," was deferred, and Dr J Solis Cohen, of Pennsylvania, read a paper on the "Elements of Prognosis and Therapeutics of Laryngeal Tuberculosis," upon terminating which, Dr Cohen exhibited some handsome colored plates, illustrative of the facts set forth in his paper

On motion of Dr Fairbanks, of Michigan, a vote of thanks was extended Dr Cohen for his valuable and instructive paper, which was then briefly discussed by Dr Hollister, and referred to the Publication Committee

Dr Henry A Martin, of Massachusetts, then read a paper on "Vaccination and Propagation of Vaccine Virus" Dr Mitchell, of Rhode Island, corroborated Dr Martin's statements, and gave the Section the benefit of his experience in using the proper sort of vaccine virus

On motion, Dr Martin's paper was referred to the Publication Committee

Dr James C Wilson, of Pennsylvania, being absent his paper on "The Specific Treatment of Enteric Fever" was omitted from the proceedings

Dr A T Keyt, of Ohio, then read a paper on "Diminution of Retardation of the Pulse in Aortic Insufficiency" During the discussion which followed, Professor Palmer, of Michigan, said that Dr Keyt's paper was worthy of the highest praise, sentiments in which he was joined by Drs Hollister and Scott Upon motion of Professor Palmer, the thanks of the Section were voted to Dr Keyt, and his paper was referred to the Committee on Publication

Upon motion of Professor Palmer, of Michigan, a vote of thanks of the Section was extended to the Chairman and the Secretary for the admirable manner in which they conducted the meetings of the Section

On motion, the section then adjourned *sine die*.

MEDICAL SOCIETY ITEMS

WE have received the following preliminary announcement relating to the American Public Health Association, and commend it to the attention of our readers

This Association will hold its eleventh annual session at Detroit, Mich, commencing Tuesday, Nov 13, 1883, and ending Friday, Nov 16

The following subjects are chosen for special consideration at that time

I MALARIA—Its etiology, its American history, its specific particles, its origin, methods of prevention, etc

II FOODS—Their adulterations, healthy or deleterious modes of preservation, and the function of legislation in regard to them Ascertained facts as to adulterations in this country, facts as to canned goods, condensed milk, artificial butter and cheese, prepared meats, etc

III VITAL STATISTICS—Methods and results, defects apparent, how foreign modes of tabulation are to be followed, systems of collection and classification, race vitality and the care of population as indicated by statistics

IV The control and removal of all decomposable material from households, the mechanical laws, constructions and appliances relative thereto, the construction of all inside pipes and their connections, their traps and syphonage, flushing, ventilation, how they shall be connected with out-door receptacles, and yet be free from ill effect

The executive committee desires to secure facts and opinions as to practical methods of dealing with the interest of the public health Reasons for the views entertained, the results of experience, and the best judgment as to preventive and restrictive measures are especially sought

Methods and systems of physical education, drill, etc, feasible in the school-room, will be discussed While papers of merit on other topics are by no means excluded, it is believed wise to concentrate the preparation of papers and discussion upon these topics

The special committees on compulsory vaccination, the management of epidemics, and on diseases of animals, will, before the completion of their reports, be glad to receive communications from any who have facts or opinions bearing on these subjects

The executive committee feels warranted in saying that the meeting promises to be one eminently inviting and profitable, and urges the attendance and co-operation of physicians, engineers, architects, teachers, and all those interested in the advancement of public health and physical well-being

Inquiries of a local character may be addressed to Wm Brodie, M D, Chairman Local Committee, Detroit, Mich

A later notice giving such detailed information as to local points, programmes, transportation, etc, as may be available, will be issued in due season before the meeting

THE fifty-first annual meeting of the British Medical Association was held at Liverpool July 31, August 1, 2 and 3 Its presiding officers for the year 1883, were, President, Thomas Lawes Rogers, of Rainhill, Vice Presidents, George H Savage, of London, and David Yellowlees, of Glasgow

THE sixth annual meeting of the American Society of Microscopists will be held in Chicago next week The opening session will be at the Weber Music hall and the regular meetings at the College of Pharmacy, corner of Van Buren street and Michigan avenue The following is a list of the papers which are to be presented so far as yet received W H Birchmore, Carbondale, Kan, "Some Notes on Embolism in Pigs," Thad S Updegraff, Elmira, N Y, "A List

of Hitherto Undescribed Infusoria," A H Chester, Clinton, N Y, "A New Method of Dry Mounting," George E Blackham, Dunkirk, N Y, "On the Relation of Aperture to Amplifying Power in the Selection of a Series of Objectives," W A Rogers, Cambridge, Mass, "A Critical Study of the Action of Diamond in Ruling Upon Glass," W A Rogers, Cambridge, Mass, "Report on the Standard Centimetre Prepared by the United States Bureau of Weights and Measures," W C Brittan, "On the Laminate Structure of Dentine," W H Birchmore, "Details of a Neoplasm," M L Holbrook, "The Termination of the Nerves in the Kidneys," J T Brownell, Mansfield, Pa, "A Basis of Natural Classification of Plants Founded on Their Seeds," J T Brownell, Mansfield, Pa, "The Eureka Turn-table," George E Fell, Buffalo, N Y, "Effects of Ozone on Bacteria," D S Kellicott, M D, Buffalo, N Y, "Some Parasites of the Crayfish," D S Kellicott, M D, Buffalo, N Y, "An Improved Aeroscope," F M Hamlin, Auburn, N Y, "Microscopical Examinations of Seminal Stains on Cloth," C M Vorce, Cleveland, O, "On Organisms Found in the Waters of Lake Erie," A M Bleile, Columbus, O, "Further Notes on the effects of the Division of the Vagi," H L Smith, Geneva, N Y (title of paper not yet given), Allan Y Moore, Cleveland, O, (title of paper not yet given), L M Eastman, Baltimore, Md, "On Some Egglike Bodies in the Liver of Rabbits"

AT the recent meeting of the American Otological Society, Dr C H Burnett, of Philadelphia, was made President for the ensuing year, Dr J S Prout, of Brooklyn, Vice-President, Dr J J B Vermeyne, of New Bedford, Secretary and Treasurer

THE American Dental Association meets August 7 at Niagara Falls Its officers are—President, W A Goddard, of Louisiana, Corresponding Secretary, A W Harlan, of Chicago, Recording Secretary, Geo A Cushing, of Chicago

THE officers elect of the American Ophthalmological Society are, President, Dr H D Noyes, of New York, Vice-President, Dr W F Morris, of Philadelphia, Secretary and Treasurer, Dr R H Derby, of New York

THE National Dental Association will meet August 3, in Washington, D C. President, J B Rich, of New York, Secretary, R F Hunt, of Washington

FROM the 25th to the 28th of September a society of alienists will meet at the asylum, Nueva-Belen, near Barcelona

THE Sanitary Institution of Great Britain will hold its meetings from the 25th to the 29th at Glasgow, Scotland

REVIEWS

GUY'S HOSPITAL REPORTS, Vol XLI—The annual report of Guy's Hospital for 1882 begins its pages with a memorial biography of Joseph Towne (by Thomas Bryant), modeller to Guy's Hospital for

fifty-three years It seems that his first work of importance was done at the age of seventeen years, in secret and by night, with the dim light of a candle It was the model of a human skeleton, and was built up from drawings taken from books, and from such specimens of human bones as could be obtained in a then remote country village, was exhibited at the Society of Arts in the year 1826, and won the first gold medal of the Society It brought Mr Towne directly under the notice of Sir Astley Cooper, who accepted him as his *protégé*, and led to his employment by Guy's Hospital, where his works, to the number of a thousand, testify to his industry and faithfulness to true scientific representation and the principles of art Calcutta, Madras, Bombay, New York, Alabama, New South Wales and Russia also possess many fine specimens of his work He executed several successful models as a sculptor, as a bust of Sir Astley Cooper, of Dr Thos Addison, an equestrian statue of the Duke of Kent, and others, but found it necessary to give up the work of the sculptor, as it interfered too much with his modelling He also delivered a course of lectures at Guy's Hospital, on the Brain and the Organs of the Senses and of the Intellect, contributing valuable and suggestive papers on the Stereoscopic Theory of Vision, etc He died June 25, 1879

Dr C Hilton Fagge reports a case of phosphorus poisoning, with recovery, under the administration of turpentine The patient swallowed half a sixpenny bottle of Cooper's phospho paste mixed with whisky He came under treatment first by emetics, two and a half hours after taking the poison The emetics evidently assisted in the removal of much of the phosphorus, when he was put upon the turpentine treatment, leaving the hospital in ten days time

Dr W Hale White reports a case of symmetrical softening of the corpora striata, followed by bilateral descending degeneration, with secondary anterior poliomyelitis, and Dr George H Savage discusses several cases of exophthalmic goitre with mental disorder

Dr W Arbuthnot Lane, in giving cases of empyema in children treated by removal of a portion of rib, considers that a portion of rib or ribs be removed at first, in this disease, and the cavity thoroughly drained from the beginning, in none of his cases, except one, did he have any trouble with the growth of bone interfering with the opening except in the first one He divides the periosteum longitudinally, turns it off the rib, and then removes a piece about three quarters of an inch long with the cutting forceps

An account of abnormalities observed in the dissecting-room of Guy's Hospital, by Drs Carrington, Horrocks and White, makes us wonder why more of this sort of work is not done by our own men No one can pass a season in the dissecting rooms of any of our colleges without observing something that is worthy of permanent record as monstrosities Our demonstrators of anatomy should all of them be compelled by their respective Faculties to keep such a record as a report of work done, which they could publish afterwards to their own credit and add valuable material to the current literature

Dr. Golding Bird and Mr

two

pulsating tumor at the root of the neck. One was aneurism, but was accompanied with peculiar symptoms. The other was a post-sternal abscess, which simulated aneurism. The sphygmographic tracings taken in connection with these cases are interesting features of their reports.

The surgical affections of the tongue, by Thomas Bryant, forms an admirable grouping, with illustrations, of a variety of cases, and among other things illustrates the connection of syphilis with cancerous disease of the tongue.

Mr Samuel Wilks, in a paper on Hemianesthesia, gives cases with metallothérapie. He admits certain facts observed in connection with the cure of anæsthesia by metals, but has as grave doubts as to their *modus operandi* as he has to the correctness of the theory as to the supposed seat of the disease. He finds a difficulty in distinguishing between men and women in respect to considering this disease a functional disorder, as the hysterical phenomena show themselves also in the male, with the same kind of mental and moral perversity as exists in women. In one case he makes the following comment: "The case exemplifies what every medical man must have seen, not only that in hysteria and some nerve disorders medicine is useless, but that it often does positive harm. Whilst this girl was under treatment she made no improvement, and when the case became interesting, on the introduction of the new system of 'metallothérapie,' all chance for her was gone. Neglect was the treatment she needed. It was more than she could withstand. Her reflections, on finding herself in bed for a fortnight with no one caring for her, roused her dormant will, and was, therefore, exactly the stimulus she wanted."

Dr Goodhart reports four cases of what he calls saturnine lunacy, and Dr Davies Colley gives cases of acute gonorrhœal rheumatism, considering that this disease occurs as often in females as in males, if not more often, and that its favorite seat is the fibrous tissue of the elbow joint.

Mr Jacobson discusses enchondromata of the salivary glands, and Dr Pye-Smith, in a long and valuable article, gives a case of idiopathic anæmia of Addison, with a commentary and tables of selected cases, which is a valuable monograph in itself, as it thoroughly covers the ground and gives a full bibliography of the subject.

Dr Thomas Stevenson, under the head of poisoning by aconitine, gives the details of the case of poisoning by Dr George Henry Samson of his brother-in-law, Percy Malcolm John, which excited much interest in 1881. A full description of the analysis of the viscera follows, with an account of aconitine and cases of poisoning by the use of the drug.

Golding-Bird, in giving laboratory notes on the working of the histological class, sets down what he considers the best and shortest way of preparing tissues, cutting and staining sections, etc. He gives an excellent cut of the ether microtome.

Cases of paralysis of the abductors of the vocal cords are recorded by Dr Frederick Taylor, in which he illustrates both organic and functional affections. In the first he recognizes the unexplained fact that in in-

jury or disease of the roots or trunks of the pneumogastric, spinal accessory or recurrent nerves, the abductor filaments are liable to become affected sooner than the others, and may be affected alone. Two of his functionally affected cases illustrate the fact that dyspnœa and inspiratory stridor from approximation of the vocal cords, may occur as a temporary affection, which is not spasmodic, and has not for its remote cause an organic lesion, but probably some conditions of nerve failure, as hysteria or exhaustion.

Dr Carrington, under the head of Multiple Small Abscesses of the Liver, records thirteen cases at considerable length, and Dr Golding-Bird discusses *Pes Valgus Acquisitus*, *Pes Pronatus Acquisitus* and *Pes Carus*. Dr Thomas Stevenson discusses lead-poisoning, and Dr Branley closes the volume with an article on the vitreous body in its relation to various diseases of the eye.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Held at Grafton, May 16 and 17, 1883.

PROCEEDINGS OF THE EIGHTH ANNUAL SESSION OF THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION. Held at Sparta, Ill., May 9 and 10, 1883.

These are two pamphlet volumes containing a record of the proceedings of each society. In the latter no papers are printed. The proceedings as recorded consisted of questions and answers from various members of the society upon very common subjects. The utility of a printed record of this kind is limited entirely to the members of the society.

In the former the first twenty-four pages contain a record of business transacted, an enumeration of the papers read, and, very briefly, the comments made upon them. The remaining sixty pages give: The Address of the President, Dr B W Allen, of Morgantown; the Report of the Committee on Epidemic Diseases, by Dr R W Hall, of Mannington; the Report of the Committee on New Medicines, by Dr J M Lazzell, of Fairmont. A short but most excellent article follows these by Dr E C Myers, of Wheeling, on the "Germ Theory of Disease." He briefly, but impartially, and very thoroughly reviews the subject, pointing out facts, and distinguishing carefully between what is supposed and what is true or demonstrated conclusively. The next paper is by Dr D P Morgan, of Clarksburg, on the "Abuse of Ergot in Obstetric Practice." Dr G H Carpenter, of Moorefield, discusses "Insanity as a Disease," and urges the general practitioner to study this subject with greater care, and not to leave it so much in the hands of specialists. If this were done asylums might not be so well filled, and, at the same time, there would be fewer insane persons in the community. "Puerperal Fever and Its Treatment by Intra-Uterine Antiseptic Irrigation," is ably considered by Dr S L Jepson, of Wheeling. He has carefully culled the opinions of the best authorities on the subject, and presents the matter clearly and logically for consideration by the reader. The two last papers are "Report of a Case of Intra-Peritoneal Hæmatocele," by Dr R W Hall, of Mannington,

and a "Record of Some Anomalous Obstetrical Cases," by Dr C F Ulrich, of Wheeling

BACTERIA AND THE GERM THEORY OF DISEASE, by Dr H GRADLE Chicago W T Keener, 1883

This volume comprises eight lectures delivered at the Chicago Medical College by Dr Gradle, Professor of Physiology in that institution

In this work it was evidently the writer's aim to present a clear and concise statement of the facts which have been established concerning the germ theory of disease, and not only this, but also to describe the methods which have been employed by the principal investigators in the elucidation of the manifold mysteries in which this interesting and important subject is involved By succeeding in these regards, as he certainly has done, he has given his readers a volume replete with interest, and has enabled them to judge for themselves of the reliability of the testimony which has been advanced for the substantiation of the theory

The subject is systematically and thoroughly dealt with from beginning to end, but, while criticism is freely employed, it is, nevertheless, so fairly done and is so free from all personality, that the writer cannot be accused of undue prejudice, although it is clearly evident that he is inclined to adopt the most advanced views with regard to the etiology of the diseases which are discussed

The reader's attention is first directed to the universality of microscopic parasites and their relation to putrefaction and fermentation, the accomplishment of which is regarded as the life work of living beings In the second lecture the microscopic examination of bacteria is fully considered, and their structure, habits, and modes of reproduction are described The third lecture is occupied with further considerations of bacterial life, and a discussion of the agencies which are at work in nature for the accomplishment of their destruction Lecture four considers bacteria with reference to their relations to the animal body, both in health and disease, and discusses the results of protective vaccination against chicken-cholera and charbon The fifth, sixth and seventh lectures treat of the relations of bacteria to each of the several constitutional diseases with which they have been regarded as causatively associated

With regard to tuberculosis, the author takes the ground that the presence of characteristic tubercle bacilli in the sputum is one of the most constant signs of the disease, for the bacilli can be found, as he asserts, in the sputum of at least 90 per cent of phthisical patients The author himself, who is an enthusiastic investigator, and has given much careful attention to the examination of bacteria, found the bacilli in 35 consecutive cases of tubercular patients He admits that the tubercle bacilli are not always to be found, but asserts that no one has as yet been able to show that the disease can ever exist without the presence of the bacillus tuberculosis

In this connection mention is made of Spina's experiments, which have recently been published as a complete refutation of Koch's work To meet these objections to Koch's theories, the latter is quoted to the

effect that Spina's experiments show a lack of skill and familiarity with the proper methods of investigation, while his results are substantiated merely by the effects produced by the inoculation of two rabbits, Koch's assertions, on the other hand, being based on the results of researches involving over two hundred animals of various kinds

The final lecture is devoted to a consideration of the local diseases which may be regarded as of bacterial origin

Taken as a whole, this is a work which redounds greatly to the writer's credit No extreme grounds are taken, but the evidence is carefully epitomized and candidly placed before the reader To those who are unfamiliar with the amount of painstaking labor required by the men who make it their work to investigate this most difficult subject, it will come as a pleasing revelation, while by that more numerous class which has long been more or less acquainted with the results of microscopic investigation, it will be welcomed as a highly interesting summary of all that has been accomplished in this direction up to the present day

ALCOHOL AS A FOOD, A MEDICINE, A POISON, AND AS A LUXURY, by George D Pitzer, M D, of St Louis This is a pamphlet of sixty one pages, written in any easy and readable style, well adapted for popular use The more important views of the author regarding the effects of alcohol and its uses may be gathered from the following quotations from the closing paragraph of the essay "It (alcohol) is not, nor can it be, a substitute for food But as a poison greatly to be dreaded, and can be used as a medicine only in skillful hands, and then, in many cases where it is still used, other drugs recently introduced are far more effective, besides a great deal safer It has no power to avert disease when taken as a beverage in health, but on the contrary, it renders people more liable to be attacked, and its continued use greatly reduces their power of endurance, and they are not nearly so able to resist disease when it comes"

ELECTRICITY IN MEDICINE AND SURGERY, by Geo C Pitzer, M D The author of this little book is a professor in an eclectic medical college of St Louis, but that need be no reason why his book, if a good one, should not be read The first part is occupied with simple descriptions of electrical machines The rest is a brief consideration of electrotherapeutics Many extended quotations are made from good authors, and a few cases are detailed by the author in illustration of the good and negative results of treatment by electricity From the work one could not get a thorough nor a very satisfactory knowledge of the subject, although, by its guidance, he might use electricity in his practice with success

BOOKS AND PAMPHLETS RECEIVED

The Hydatiform Mole, by J P Miller, M D, (Reprint)

The Electric Light in Surgical Diagnosis by Russell Park, M D, (Reprint)

Report of the Health Officer of the District of Columbia for 1882

Berichte des Naturwissenschaftlich-Medicinischen-Vereins in Innsbruck, XI Jahrgang 1880-'81

Perinaphric Abscesses, Roberts (from *American Journal of Medical Sciences*), April, 1883)

Double Synchronous Amputation of Lower Extremities in Five Cases of Railroad Crush By E H Woolsey (From Transactions of State Medical Society of California, 1883)

Therapeutic Value of Cephalic and Spinal Electrization By C H Hughes

A Physical Analysis of a Legally Sane Character By C H Hughes

The Simulation of Insanity by the Insane By C H Hughes (From *Alenist and Neurologist*, 1883)

Proceedings of the Eighth Annual Session of the Southern Illinois Medical Association, 1883

MISCELLANEOUS

THE first annual supper of the Chicago Dental Infirmary occurred at the infirmary, Nos 22 and 24 East Adams street, July 31. The infirmary has been open a year and is doing excellent work. The officers are James A Swasey, President, A W Hurlan, D D S, Vice President, Eugene S Talbot, M D, D D S, Recording Secretary, Truman W Brophy, M D, D D S, Corresponding Secretary, Edgar D Swain, D D S, Treasurer.

The institution is incorporated under a general law of the State of Illinois, and is authorized to give instruction in the specialty of dental surgery. It is empowered also, to confer the degree of Doctor of Dental Surgery. This degree will be conferred only upon persons holding a degree in *medicine* from colleges recognized by the Illinois State Board of Health. Matriculantes intending to take the degree of doctor of dental surgery must hold a degree in medicine or be pursuing studies to that end in some reputable medical college.

It is the hope of the founders of this institution, that in time all dentists will be graduates in medicine as well as skilled in their specialty. The Infirmary affords clinical advantages for the study of dentistry, while it is expected that at the same time its students will attend some one of the regular medical colleges of this city.

DR BROWN-SEQUARD, on account of his labors in physiology, has been awarded by the Royal College of Physicians, the gold medal which was founded in memory of Dr Baly.

NECROLOGICAL

MCDOWELL, GEORGE MONTGOMERY, M D, of Barnesville, Georgia, was born in Pike county, Georgia, July 26, 1834, died at his residence, July 22, 1883. He was the son of Charles and Elizabeth Heard (Crain) McDowell. His education was derived from private tutors and at the Pike Academy. His medical degree was conferred after due attendance on lec-

tures at the Jefferson Medical College in Philadelphia, in 1855. The same year he began practice in Barnesville, but in 1857 removed to his plantation. In 1860 he resumed general practice. The war between the States breaking out, he raised a company in the 4th Georgia Battalion, which he commanded as Captain, and in which position he was both popular and brave. But the demands were so general for his medical services by all who knew him, that he was induced by General Bates to give up his command and accept the commission of Chief Surgeon of his division, which position he held until near the close of the war, when he was promoted to Medical Director of the Western Army. Dr McDowell was a member of the Middle Georgia Medical Association, of which he was Vice-President in 1874, and President in 1875. Also, he was a member of the Georgia Medical Association, and of which he was President in 1871 and 1872, and a member of the American Medical Association in 1879. He was active and influential in the organization of the State Board of Health, which was organized in 1874. In 1855, Dr McDowell was united in marriage to Sophrona L Mays, of Barnesville. His wife and five children survive him. He was a member of the Knights of Honor, Royal Arcanum and A O U W, which secures to his family about \$7,000. The business houses in Barnesville were closed until 12 o'clock on the morning of his funeral, and almost the whole population joined in the service and cortege to the Methodist cemetery. J M T

NEWMAN, S T, born in Mississippi, November 30, 1816, died suddenly of apoplexy at his residence in St Louis, Mo July 15, 1883. While a child his parents removed to Kentucky, and he received his education at Augusta College. His medical degree was received from the Transylvania University at Louisville in 1839. He began practice at Amsterdam, Miss, where he resided five years, when, on account of his health, he removed to Richmond, Ky, where he remained till 1856, when he was induced to take up his residence in St Louis. Here in his new field he acquired a large and responsible practice, and was popular both with the public and the profession. He was a member of the St Louis Medical Society, and its President in 1860. A member of the American Medical Association in 1873. J M T

WARDER, JOHN A, M D, born in Philadelphia, 1813, died of paralysis at his residence in North Bend, Ohio, July 14, 1883. He was a graduate in medicine in the Jefferson Medical College, Philadelphia, in 1836. Before graduating in medicine he had removed to Ohio. For years he held the Chair of Chemistry in the Ohio Medical College. He was a prominent member of the American Forestry Congress, and was a writer of note—author of "Hedge Manual," 1858, "American Pomology," 1867, edited *Botanical Magazine and Horticultural Review*, and has contributed largely to periodical literature. A member of the Ohio State Medical Society, and, by invitation, a member of the American Medical Association in 1867. J M T

Journal of the American Medical Association.

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ADDRESS OF THE CHAIRMAN OF THE SECTION
ON SURGERY AND ANATOMY—READ TO THE
MEETING OF THE AMERICAN MEDICAL
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1883

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In performing the duties of Chairman of the Surgical Section, it is not deemed practicable to encompass all that the organic law of the Association may contemplate. For, in reporting upon the progress made in surgical science, it is recognized that many theories are, at present, announced as facts, which, when experience and demonstration shall have thoroughly tested them, may be eliminated, to perhaps reappear when the cycle of professional experience again completes its revolution.

The greatest progress has been made in operative surgery, although other departments have been constantly receiving new light and attaining results that add to our already extensive accumulations. It is not claimed that large numbers of new operations have been originated and performed, but it is evident, that the better understanding of pathological conditions, has stimulated surgeons to establish a standard for operations hitherto ventured upon in rare and extreme instances only.

In pathology the microscopist has been active in trying to define and locate the germ cause of disease.

Since Cohnheim gave to the profession, in a complete and formulated manner, the character and importance of the colorless corpuscle in pathological changes, strenuous efforts have been put forth by Pasteur, Koch and others to unfold the importance of the bacterian germ which, according to the demonstrations of Oliver, Richet and Mitrophanow, have a normal existence in the blood, lymph and tissues of the body.

Burdon-Sanderson, Chauveau, Watson, Cheyne, Billroth and many others have adduced much information which certainly can not do otherwise than benefit, even though a great modification of the bacterian theory is made necessary.

Certain it is that during the year, there has been developed a strong feeling in favor of Koch's views concerning the bacilli and their alleged tubercular

relations. That these peculiar micro germs exist there can be no longer any doubt.

But whether they are the cause of the tubercle, or whether the tubercle develops *them*, the profession has not made sufficient progress as yet to justify an unequivocal statement.

In Austria there is, existing under the leadership of Koch, a strong belief in favor of the bacilli being the cause of the deposit, while in Prussia, Spina leads the opinion that the bacilli are produced by the tubercle or the associated conditions which originate the tubercular matter.

If the following statement of Spina be true, then there is much uncertainty surrounding the whole theory of bacilli being the cause of tubercle.

"I have examined about 150 mesenteric and omental tubercles in the most various stages of their development according to Koch's and Ehrlich's method, and found bacilli in *not one case*."

The surgeon is much interested in these investigations, because of the important statements made by eminent teachers concerning the origin and nature of some forms of articular disease, also the peculiar degeneration which takes place in bone and glandular structures. The interest does not stop with these tissues, for underneath it all the "germ theory," which is thought by many excellent men to be the greatest of all causes in engendering infections, inflammations, pyæmia, septicæmia, abscess, gangrene, etc., receives a support which, if conceded, will tend to give new and more efficient reasons for the use of antisepticism in practice. Now that so many able and relentless workers are seeking information, which promises greater accuracy, it may be well not to claim too much for remedies which are given with the expectation that they shall ultimately reach the habitation of the noxious germ, and there hold mortal combat and win a victory for further life in tissue which is threatened with decay and death.

It cannot be admitted that practical surgery has thus far been directly benefited by Koch's views.

The condition of the problem of the management of wounds and other pathological processes by means of the so-called antiseptic methods, suggests a move in the direction of greater confidence in the details of operative procedure and scrutinizing attention in extreme cleanliness in the minute of practice.

It is difficult, in fact, impossible, to state with precision the exact deviation in the direction of for or against the treatment of wounds by the different chemical agents during the past year. With a man, the custom is to believe that antiseptic practice is

surgery means the application of *carbolic acid* in some form of attenuation to the cut or exposed suppurating surface

Different surgeons have used different substances, but according to the experiments of Dr A T Cabot, of Boston, upon detached dead tissue, it was found that carbolic acid acted more promptly than any other agent in arresting putrefaction and destroying micro-organisms connected with the changes of decomposition

Within the year the antiseptic methods of wound manipulation have been regarded as embracing the spray, fixed and intimate relations of fresh surfaces, rest, pure air surroundings, and, when practicable, drainage

It was stated by Thornton that the principal danger which surrounded the opening of the abdomen was from the action of the vicious bacteria. And Spencer Wells' unprecedented(?) experience in ovariectomy is referred to by Marcy as furnishing almost incontrovertible evidence in favor of the antiseptic practice

In this connection the experience of Mr Lawson Tait, where he reports 100 successful ovariectomies with but three deaths (none of the antiseptic precautions having been regarded), should also be remembered by those who can only see progress and success in treating wounds on the anti-germ plan

Certainly the new experience of Billroth and Es-march is commendable, and should be gratifying to those eminent operators. But it cannot be successfully argued that the lessened mortality was alone due to the use of antisepticism, as practiced by Lister. It will be immediately asked, how else can these alleged great changes in practice be explained?

If everything that is used to keep a wound clean, and to ensure thorough drainage, is called antiseptic practice, then no adequate explanation can be offered

Is not the experience of Mr Keith as wonderful as the tabulations of the Vienna and Keil surgeons?

The experience of the English surgeons, on duty with the British troops in Africa during the Zulu and Transvaal wars, was such that the antiseptic management of wounds was commented upon with but little favor after the records of those campaigns were finally submitted

The rather short campaign in Egypt was characterized by great dissatisfaction in the beginning of the war. But after the surgical management had become thoroughly organized and freed from abuses, observations were made by good men who had only good reports to make of the antiseptic practice, which was very generally employed

While it is admitted that most of the leading surgeons of England are thoroughly wedded to the practice of antiseptic treatment of wounds, there are to be found not a few excellent teachers and operators, who most reverently believe that nature, under wise assistance from the surgeon, will do more to save limb and life than the surgeon can do, who depends upon restricted antisepticism. The writer has opened the abdomen, in all, forty-eight times. In forty-six instances for the removal of ovarian growths, once for an adherent ovary and once for an intestinal ob-

struction. In the first fifteen cases there were six deaths. The operations were made under the spray and the wounds were treated with a carbolic acid solution. In the remaining thirty-one ovarian operations, also in the oophorectomy, and in the case of laparotomy, the spray was not employed. The last two mentioned cases recovered, and out of the ovariectomies there were four deaths. Has it occurred to those who are strong in their advocacy of the antiseptic treatment of wounds that in the United States there are in active practice among the 52,000,000 of inhabitants, about 86,000 medical men, a very large number of whom are treating wounds and pathological lesions? Also that many of the wonderful results accomplished by these numerous surgeons are wrought, not by means of the spray and carbolic acid, but by the extraordinary care and attention which are given their cases?

Those who write for the periodicals and report results in practice are very few, unfortunately. The major operations are being performed in many apparently out-of-the-way places, and results are being achieved which would receive the encomiums of the renowned in our ranks, did they but know where, and upon whom, to bestow them. It is apparent that the "lost art" of blood-letting, in the treatment of inflammation, is being reclaimed, and its induction to a legitimate position among other remedies of conceded value is fast taking place

Besides reasons derived from clinical experience, Dr Nancrede, of Philadelphia, has observed and demonstrated that an accumulation of the oxygen carriers in the beginning of inflammation overloads the parts with oxygen, which stimulates unusual amoeboid action of the colorless corpuscles, thus favoring cell migration. The lymph spaces, through which excessive accumulations of liquor sanguinis is directly returned to the blood, become blocked, and as a result cell proliferation and stasis takes place. Cell nutrition is prevented. Direct withdrawal of blood, when performed sufficiently early, unstops the lymph spaces, unloads the oxygen, and re-establishes a circulation, which can carry on physiological nutrition

Among the many new and important instruments which have been presented may be mentioned the universal or compound racket joint which has been offered by Dr Stillman, and which can be adjusted at pleasure, and permitting of universal motion. Perhaps one of the most important steps that has been taken, is the utilization of the electric light, both as a means of diagnosis and as an aid in making operations in cavities and places where natural light can be used with uncertain effect

The instruments invented by Leiter, of Vienna, and Dr Nitzel, of Dresden, some of which have been well described by Dr Roswell Park, are well calculated to assist in causing much progress in the next decade

Dr Thomas Oliver opened an abscess of the liver, and then placed the electric light within the cavity, thus defining with great certainty and satisfaction the size of the cavity and the thinness of the abscess wall, on which he states he saw "a greyish red condition of the wall of the cyst, studded across which

were numerous yellow-white spots, evidently pus. A slight oozing or sweating was also noticed on the wall of this cavity." For the attainment of this remarkable achievement he employed Swain's lamp, which in size is no larger than an ordinary bean. The interior of the bladder, pharynx, larynx, œsophagus, stomach, and ear have been illuminated, thus suggesting the possibilities in waiting for experimental art.

Prof. Graham Bell has repeated his experiments with the induction balance, and has made decided progress in locating metallic substances in the tissues of the body. Not only has he utilized the electric current to locate the lead, but he has demonstrated the possibility of determining the distance of the substance from the surface.

His reports are very interesting, and for a full description of his ingenious instruments they must be examined.

In the direction of exploration and diagnosis of intra-vesical pathology, Sir Henry Thompson has offered some very valuable information. He makes a "limited incision" in the membranous portion of the urethra, and with the index finger passes along the track of the separated urethra to and through the neck into the bladder, where, by the aid of suprapubic pressure, a free and satisfactory exploration of the cavity and walls is permitted.

This method he has employed in thirteen cases, and has removed five tumors, the location and nature of which could not have been so well determined in any other manner. He also reports a case in a female, where he, by dilating the urethra, succeeded in diagnosing and removing a polypoid growth.

The year has greatly added to our previous meagre knowledge of surgical procedure in intra-abdominal pathology.

The statistics furnished, by reason of abdominal sections, are becoming increasingly valuable, because they show that less hazard is encountered in attempting to extirpate tumors, malignant growths, and in removing the causes of intestinal obstructions than was formerly supposed. The operation for removing a portion of the stomach or its duodenal connection may be said to have been legitimized by the experience, much of which has been furnished by the surgeons of continental Europe, since our last session.

It is not intended to convey the meaning that gastrotomy is an operation of very recent origin, but rather to state that the feasibility of its commendable performance has been mainly proven by the experience collected during the interregnum of the Association.

Dr. Troquart states that there have been performed in all, since 1879, so far as public announcement has been made, twenty-nine pylorotomies and gastrotomies, thirteen of the operations having been made before January, 1882, and during that year.

Up to January, 1883, there have been performed seven additional operations, making in all thirty-six operations for the removal of some portion of the stomach or duodenum for cancer, gastric ulcers, inflammation and destruction of colon.

Three of the operations were for ulcers, and the

remaining thirty-three were supposed malignant deposits.

From the information within reach, there were four recoveries, all of the remaining cases dying within ten days, except one case (Billroth's), which died at four months. Unless the greatest discretion is shown in the selection of cases for operation the mortality can not be otherwise than very high.

No less an authority than Billroth states that not more than one case out of fifty is suitable for operative interference. Evidently his opinion has a good retrospective support, when the statistics of Gussenbauer and Van Winwarer are considered. They state that after having examined 903 cases of cancer of the stomach in the Pathological Institute in Vienna, that there were 542 cancers of the pylorus, 370 of which had adhesions of greater or less extent to the contiguous organs.

Thus far the majority of the operators prefer to reach the pylorus by making an incision in the median line. There are two very important questions to be answered in connection with this operation.

First. If the cancer, for which nearly all the operations are performed, is due to a general cause, can the surgeon expect the patient to receive other than temporary relief from the operation?

Second. Will the aggregate life in those cases, when the operation is successful, be greater than it would be in those cases who die as a direct result of the operation?

The history of recurrence of cancer of the stomach is yet to be studied in its relation to removal by operation. But it is hoped, that a justification of the operation will only be based upon an experience that the average pathological life is longer with the operation than without it.

Laparotomy is an operation which is progressing with much favor in America and France. Since ovariectomy, with its many complications and risks, is becoming rather common, the opening of the abdomen to relieve intestinal obstruction, the result of temporary misplacement of the bowel, or from the abnormal location of the products of inflammation, is not only inviting, but operators, who have had experience in making ventral sections, proceed with less hesitation to search within the abdomen for arrested alimentary action.

As experience increases it will no doubt be shown that the tissues involving the cæcum and its contiguous relations are much oftener the seat of morbid changes, resulting in unabsorbed deposits than is ordinarily supposed. In fact the lymph exudation and fibrinous adhesions—the result, perhaps, of an unrecognized local inflammation—may serve, in an indirect manner, to not only impair nutrition but directly imperil the life of the organ and possibly that of the body.

The physician explains that the costal and pleuronic surfaces of the pleura may be adhered to each other and, in this way, unfavorably affect the functions of respiration. The same statement may be occasionally given of allied pathological conditions existing within the abdominal cavity and particularly near the ilio-cæcal re-

The following cases have in important bearing upon the foregoing illustrations.

Ole Johnson, male, æt 24, single, Norwegian, country merchant. He resided on a farm until 1874, since which time he has been occupied in a general store. His physique was slight, and general health only fair. In 1869 he had an attack of typhoid fever, but recovered with about the same average health. On May 24, 1882, he complained of feeling unwell, experiencing slight pains in the abdomen, with a sensation of nausea.

In the morning of the same day there occurred a profuse spontaneous action from the bowels. On the early morning of May 31 the pain sent him from his bed at 4 o'clock. He walked the floor, occasionally vomiting, but could not obtain relief by taking "hot drops," and brandy, domestic remedies which were near at hand. So it was Dr Fitzgerald, of Grindston, was called, and observed anxious countenance, more or less pain, though not severe, frequent efforts at vomiting which at occasionally succeeded in producing aropy mucus. He gave a hypodermic injection of morphine, which relieved the pain for a short time, and influenced a kind of restless sleep for only one hour, when the same treatment was resorted to again. Efforts were made to evacuate the bowels by injections, but without success. A long tube extending to the transverse colon was used, but the fluid did not bring away fecal matter. Cathartic medicine were moderately administered, but no movement could be obtained. On May 29 the patient was moderately depressed. On May 30 condition unchanged, except that systemic depression was becoming still more marked. On May 31 the patient moved decided prostration, eyes lusterless and of slow movement, stomach restless and occasional hiccupping, pulse 120 and weak, temperature 100 deg, respiration 24, abdomen slightly tympanitic, but not particularly sensitive upon pressure, bowels unmoved.

Consultation recommended opening the abdomen to ascertain the cause of the obstruction, with a further view of dislodging it if possible. Accordingly it was decided by means of kerosene light, the operation was made by making an incision in the median line, from one inch below the umbilicus to within one inch of the pubis, and thus entering the abdomen. A considerable portion of the colon and small intestines were removed, when nothing unnatural was found. I passed my right hand down to the region of the right iliac fossa, where I found a portion of the ileum imprisoned, and not at all tractile. Upon more close and minute inspection I discovered that the appendix vermiformis hid, it its cæcal extremity, become adhered, and was very firmly attached to the liver and tissues covering the last lumbar vertebra on its right lateral body. A portion of the ileum hid

both sides, so that the vermiformis acted as a stricture, preventing the passage of the contents of the ileum. The peritoneum and peritoneal surface of the ileum gave but little evidence of inflammation. The appendix could not be separated from its vertebral location without running a risk of making more or less of a lacerated surface of the adherent tissues, so I with common silk passed two ligatures around the appendix, one each side of the centre, and then divided it. From the free ends I expressed in amount from ten to twenty drops of soft pulsaticeous material, after which the parts were carefully sponged and the intestines and abdominal cavity well cleaned, together with great difficulty, on account of the lateral retraction of the thin tissues.

The parts were maintained in position by means of silver wire sutures, the abdominal walls being too short for the use of ovariotomy pins and superficial sutures of silk. Over the wound was placed absorbent cotton and a bandage. The subsequent treatment consisted of milk and undisturbed dressings. The pain required but little morphine. The bowels moved spontaneously in 73 hours after the operation. Sutures removed in twelve days, and on the 20th of June he rode 12 miles in a buggy, considering him self well. The patient's health has been much better since the operation than it ever was before, and he has gained largely in flesh, weighing 120 pounds before operation, now weighs 135 pounds, and looks florid and healthy. The appendix must have been thus abnormally placed in childhood, or maybe when he had typhoid fever.

Still further illustrative of progressive abdominal surgery may be cited a case similar to the above, being operated upon and published by Leon LeFort, of France.

In June, 1882, he was called to see a young man 18 years of age, who in the evening of May 25, 1882, was seized in the abdomen with severe pain, and about midnight the pain became more like colic, for which Dr Richard gave laudanum and belladonna, together with the application of hot poultices, some relief therefrom being received. The succeeding day (May 26), the pain increased, and accompanying it there was special sensitiveness of the abdomen, also some tympanitis. Castor oil was given but was immediately vomited, no evacuation of the bowels could be encouraged, but vomiting and retching became incessant.

There existed a small left inguinal hernia, which played no part, however, in the case, it being re- turnable at pleasure and without difficulty. It also appeared that three years before there existed peritoneal inflammation. No relief being received from the different kinds of treatment employed, and on June 1 decided typhoid symptoms—such as are seen immediately preceding dissolution—appearing, an incision about fifteen centimeters in length was made from just above the pubis to near the umbilicus. The intestines bubbled out and were carefully examined, coil by coil, and then returned. Upon meeting with slight resistance when making traction upon a portion of the ileum, the hand was passed along the bowel to

the right iliac region, where he found a constricting ring or band of fibrous tissue, which was thick, formed of organized adhesions and encircling the small intestines for a distance of five centimeters from the cœcum. The width of the band was five millimeters. The constriction was divided by means of scissors and the intestines liberated. There were some evidences of congestion, but no decided inflammation, the life of the tissues not having been compromised.

The parts were thoroughly cleansed and returned, and seven deep silver wire sutures were passed through the tissues and fastened on the opposite side by a bougie. Superficial sutures were employed to coapt the surface edges. In the night of June 1 the patient had a spontaneous evacuation from the bowels.

On the seventh day the patient subjected the abdomen to undue exertion, when the superficial sutures gave way, they were replaced, and thereafter uninterrupted recovery followed. On July 1 he was well. General management of the operation was unantisep-
tic. Health seven months after operation much better than previous health, also loss of inguinal hernia.

Prof Pietro Loreta, of Bologna, has performed a new operation upon the stomach for stenosis of the pylorus—a result of un malignant ulcerative inflammation. The operation has in view the stretching of the constricted portion by the fingers. The number of operations thus far performed are four, with two recoveries. The steps of the operation, as reported by Dr Harris, are to reach the stomach, and then, mid-way between its two curvatures, make an incision through the wall, beginning one and one-fourth inches from the pylorus, extending two and three-eighths inches toward the cardiac end. The index finger of one hand is then introduced within the cavity and carried within the stricture. The corresponding finger of the other hand follows the finger already introduced and is caused to pass through the orifice, the dorsal surface of each finger being in opposition, the stricture is then stretched. The serous surfaces of the stomach are then united by continuous sutures, thus slightly inverting towards the cavity the edges of the wound.

We understand that such an adaptation of the wound precludes the possible escape of the contents of the stomach. It will be at once conceded that a critical study of the history of any given case must result in an unequivocal diagnosis, which, when made, may finally necessitate a pylorotomy for carcinomatous deposit.

Future reports of this operation will be looked for with great interest. While your attention is upon the operative part of abdominal surgery, I wish to ask you to consider at least one of the causes of fatality. It sometimes happens that when no satisfactory clinical reason exists for an untoward result, the patient unexpectedly and rather suddenly dies. Not a few explanations, such as shock, acute septicæmia, etc., have been offered, but I feel assured that neither the direct nor ultimate cause is always found in these assumptions. The following case is both interesting and illustrative. B J, æt 19, single, native of Iowa. In 1880 there began to de-

velop in the right iliac fossa a tumor, which, in the early part of January, 1883, I diagnosed as being a multi-ocular ovarian cyst. On February 23 I operated in the usual manner and removed a multi-cyst, weighing, approximately, twenty-five pounds. Each vessel of the broad pedicle was separately tied and the membranous surfaces brought together and sewed over the vessels thus secured. The abdominal cavity and external wound treated in the customary manner. She recovered well from the depression of the operation. The temperature was 99, pulse 102, she complained of wanting more air, desiring the windows raised. At 7 30 P M, pulse 102, temperature 100½ degrees. Same feeling about insufficiency of air, and spasmodic breathing unabated, 10 P M, pulse 106 and full, temperature 101 degrees.

Quite restless, and wanted something done for her breathing, although the windows were well open. Some tenderness in left iliac. Aq ext opi suppository 1 gr given.

February 24—Restless night, symptoms of difficult breathing continued. 7 A M, pulse 124, weak, temperature 103½°. 12 M, pulse 140, weak and small, temperature 103 1-5°. 4 P M, pulse 140, weak and small, temperature 102½°. Died at 5 A M, February 25.

Throughout the case unrelenting efforts were exercised to maintain the strength by both oral and rectal alimentation.

Post-mortem examination made nine hours after death. The seat of operation was found in a perfectly satisfactory condition—no foreign material of any kind was discovered inside of the abdominal cavity. All of the organs were healthy, with one exception, viz, in the right ventricle of the heart there was a large, white fibrinous (ante mortem) clot. The question raised by this case may be the means of introducing an interesting subject for discussion in the Section. What was the cause of the blood clot? What influence permitted the separation of the fibrine from the other constituents of the blood?

The kidneys were not examined before the operation. Had they been interrogated, and had album or casts been found, I do not feel inclined to think that such discoveries would have necessarily prevented me from making the operation. At present attention of the profession is being particularly directed to the kidneys in relation to operative surgery. doubtless there is ample room for a profitable change of opinions.

To what extent defecation, especially when accompanied with anesthesia, is a cause of disturbance of the blood, careful future observation will determine. It is not enough to say that in this case, death occurred on and around one of the kidneys.

There must be a full and complete investigation of the dyscrasial condition existing before any operative observation concerning the blood is made. It is not enough to say that in this case, death occurred on and around one of the kidneys.

tion in the size of vessels does not cease when they reach the first important division, but go on decreasing in size and calibre in the entire limb and *beyond* toward the primal distribution. Coincident with this atrophic change all of the tissues, including nerves, bone and lymphatic glands decrease in size and weight, and correspondingly there is lessened function. It was also shown by M. Poncet that in a case of amputation of the leg the femoral artery was, within a period of ten days, markedly diminished in size. It was not, however, observed that the walls of the vessels showed any shrinkage. Whether or not these important changes have their beginning in the blood, heart or cerebrum, remains to be determined.

Dr David Newman, of Glasgow, has performed the operation of nephraphy, it being the first operation made in England, upon a woman for floating kidney. The renal capsule was stitched to the margins of the incision, and deep button sutures were passed through the kidney substance, thus fixing the organ in its natural position. The patient recovered and is now well.

Dr Wilham Thompson, of Dublin, has added another case of ligation of the innominate artery, the patient living 42 days.

It will be observed that but three of the recorded cases (Grafe's and Cooper's), including Smith's, which recovered, lived longer than Thompson's.

Dr Arthur E. Baker, of London, has proposed and practiced a novel and apparently successful operation for varicocele.

After washing the scrotum thoroughly he separates the veins of the cord from the vas deferens, and then passes a needle threaded with twisted silk behind the veins, after which the veins are permitted to drop back, when the needle is returned in front of the veins, which are thus secured in the loop of the ligature, through the original opening. The thread is then made tense and the veins are brought close to the wall of the scrotum, and the ligature is well tied, cut close to the knot, and then allowed to return with the veins to the scrotal cavity.

This operation differs from a similar operation recommended by Dr Gross in two particulars. First, the ligature is silk and carbolyzed. Second, the strangulation of the veins is exclusively intra-scrotal. The results reported are such as to commend a further trial of the operation.

Two interesting and remarkable operations have been made upon the sternum and its contiguous relations by Dr Kuester, of Berlin, and Prof. Koenig, of Gottingen.

Prof. Koenig's case was one of sarcomatous growth of the sternum, a considerable portion of which had to be removed. In the operation it was found that the sarcoma had become adhered, more or less, to the post-sternal tissues, including the pericardium. In the exercise of the necessary force in separating the adhesions and inter-communicating tissues, both pleural sacs, also the cavity of the pericardium were freely opened. The wound was dressed antiseptically. On the twelfth day it was discovered that one of the flaps had become gangrenous, and underneath, the process of suppuration

was going on, so much so that the imprisoned matter was forced within the pericardium, thus freely surrounding the heart. The patient made slow progress, but recovery finally occurred.

Dr Kuester's case was one of supposed sarcoma. The patient was forty years old, and had a tumor about the size of a goose-egg, situated at the sternal ends of the cartilages continuous with the third and fourth ribs. The tumor was rather elastic but not movable. It passed between the cartilages, and seemed to have an undefined distribution within the thorax. Gumma and aneurism were both eliminated. The operative procedure, made Oct. 27, 1882, consisted in dissecting the skin and cellular tissue from the tumor, commencing the incision on its inferior margin. The next step was in dividing the third and fourth cartilages and chiseling away one-half of the breadth of the sternum. Thus removing the sternum and rib connections, the tumor was discovered to have a prolongation extending well down into the anterior mediastinum, where there was seemingly a basic attachment. In the effort at separation of the tumor from the deeper tissues, the right pleura was opened and the internal mammary artery was divided.

The artery could not be reached for a time, so the hæmorrhage was arrested by acupressure. It is also stated that when the cavity of the pleura was invaded the lung collapsed. The patient recovered rapidly from the results of the operation, and no doubt will recover ultimately from his syphilitic pathology.

These cases are illustrative of bold and scientific manipulation, and at the same time they indicate how nearly a dexterously handled knife and finger may reach the vital organs of circulation and respiration without compromising life. We will not discuss whether either of the operations were absolutely necessary, but content ourselves that progressive surgery is demonstrated in their performance.

Important additions have been made to our surgical literature in monographs, revised editions of some of the leading text books, and, in America, the profession may be congratulated upon the appearance of two important volumes—one in surgery and one in anatomy.

Under the supervision of the Surgeon General's office, the late surgeon, George A. Otis, began the surgical history of the Rebellion.

He lived to render his name long famous by completing the second part and beginning the third part of volume second, of this great and incomparable history. While Dr. Otis' untimely death was a great loss to surgical science, the head of the army surgical department exhibited excellent taste and manifested wise judgment in appointing Surgeon D. L. Huntington to continue and finish this great work. The duty has been well performed, and the world is now in possession of the most complete record of wounds and injuries resulting from war and battle that has ever been produced.

A few references cannot but be interesting to both army and civil surgeons. The whole number of wounds reported were 253,142, and out of this number there were 89,528 connected with the lower extremities, 59,376 being flesh wounds, 674 being

classified as incised or punctured wounds The 30,152 were gun-shot fractures, and specially located as fol-

Femur including complications of hip joint	7 776
Fractures of tibia and fibula (shafts) single or double	10 026
complicating knee joint	3 557
" involving tarsus, metatarsus and phalanges	8 793
Total number	30 152

The relation which 89,528 sustains to the whole number shows that 35 3 per cent were wounds of the lower extremities, an experience comparing very closely with the percentages furnished by surgical reports of wars and campaigns in other countries It is shown that in 3 4 per cent of the cases both lower limbs were injured The left in 53 1, and the right in 43 5

The collected number of amputations at the hip-joint were 66, the recoveries being 11, thus furnishing a mortality of 83 3 per cent Of the 25 primary amputations there were 3 recoveries Intermediary amputations, there were 23 cases and no recoveries, secondary amputations, there were 9 cases and 2 recoveries, and of the re-amputations, 9 cases with 6 recoveries There were 33 cases of primary excision of the hip-joint with but one recovery, and of the secondary excisions of the hip-joint there were, in all, 11 cases with 3 recoveries It is stated that about 60 6 per cent of the cases of gun-shot injuries of the knee-joint complicating bone were fatal One-fourth of the whole number were not treated by operative interference

Dr Harrison Allen, of Philadelphia, has produced a part of what promises to be an excellent treatise on human anatomy, including medical and surgical relations Already there has appeared four parts, the fifth and sixth parts to be ready for distribution by October 1

A real and most substantial advance is being made in surgery in connection with railway corporations Many of the leading lines have introduced into their system of management surgical departments, the object of which is two-fold First It enables the company to more economically manage its financial affairs Second It ensures to those who may be unfortunate enough to receive injuries, the certainty of receiving the most complete surgical skill The ultimate benefits which are certain to accrue to the profession are the accumulation of a vast amount of statistical information which will be of great service in neural pathology Because it is a well known fact that many cases, the result of alleged railway accidents are finally subjected to judicial proceedings, when the statements of the plaintiff are too often believed by the jury, when the allegations are not sustained by the systematic expressions of injured tissues and organs

The instances are exceedingly rare where real pathology, the result of accident, does not fail to receive corresponding endorsement by the surgeon On the other hand, the surgeon often finds himself unable to satisfactorily interpret the unharmonious descriptions of symptoms furnished by the person who sees a morbid equivalent at the end of a well established "conclusion" (?) of the brain or spinal cord After the rendering of a judgment, and the payment by the de-

fense of assessed damages, the most marvelous and previously stated permanent disabilities recover under questionable circumstances

The retransformation of fat cell into normal glandular structure (1), the rapid change of atrophied and wasted nerve filament into normal tissue (11) occurs with inconsistent rapidity, and the teachings of histologists and pathologists are abrogated and special therapeutics, of miraculous origin, receive praise and credit which can but cause science to blush

The surgical bureaus of these corporations will, by their collected experience and tabulations, be qualified so as to be able to furnish much valuable information to both judicial and popular tribunals Then justice to pathology and rewards to individuals will receive fairer and more honorable administration

THE REALITY, MECHANISM, AND DIAGNOSTIC SIGNIFICANCE OF DIMINUTION OF RETARDATION OF THE PULSE IN AORTIC INSUFFICIENCY

BY A T KEYT, M D

[Read to the Section on Practice of Medicine and Physiology]

Dr Henderson¹, in 1832, first emitted the idea that the interval between the heart's impulse and the arterial pulse is prolonged in aortic insufficiency Since him others, and among them the principal authorities on diseases of the heart, have accepted the view Flint says "that it characterizes certain cases in which the regurgitation is excessive, is not to be denied" Walshe writes "This retardation may, with care, be detected in many, but unquestionably not in all, cases of that disease Possibly, where no morbid retardation can be discovered, the failure may depend not on its absence, but on its being carried to such extremes that the arterial pulse produced by one cardiac systole is nearly synchronous with the next" As late as 1877, M Tripiet, in a publication², advocated the reality of this exaggerated delay of the pulse in aortic insufficiency

The observation appeared incontestable The hand perceived the shock of the heart, and the finger the radial pulse, the interval between the events being noted as much longer than in health And the explanation of the accepted phenomenon came with show of reason, through the reverse arterial current and lowered arterial blood-pressure (classical) of free aortic regurgitation The view of an abnormal delay of the pulse, thus supported by observation, reason, and authority, seemed an established fact in the clinical history of this lesion

Nevertheless the idea is wholly erroneous, and the pulse, so far from being unduly retarded on the systole of the ventricle, is really greatly precipitated on that event in large aortic insufficiency Correction of the prevailing error, and demonstration of the true chronometric relationship between the heart and pulse, is due to the graphic method Traces of the heart and an artery taken simultaneously, show neatly

¹ *Edinburgh Medical and Surgical Journal* Vol xxvii 1832

Flint's *Diseases of the Heart* 1859 page 141

² *Practical Treatise on Diseases of the Heart and Great Vessels* American edition 1867 page 72

⁴ *Revue Mensuelle* t per p 19

the beginning of cardiac systole and the beginning of the arterial pulse, and the space separating these beginnings marks definitely the interval between the events. Thus the normal interval between the heart and different arteries being ascertained, the modification of the interval by disease is readily noted.

In this manner Francois-Franck experimented on patients affected with aortic insufficiency, and first

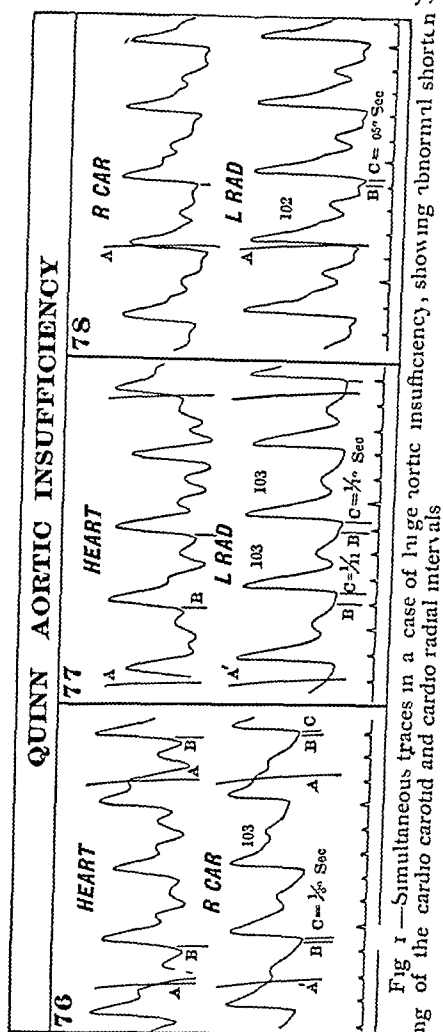


Fig 1—Simultaneous traces in a case of large aortic insufficiency, showing abnormal shortening of the cardio carotid and cardio radial intervals

presented his results to the *Societe de Biologie* in March, 1878. He formulated thus the conclusion of his researches: "In large, pure aortic insufficiency the retardation of the pulse on the beginning of the systole of the heart is very notably diminished." Contemporaneously with Franck I also was studying, independently, by means of the simultaneous graphic method, the influence of different forms of valvular disease on retardation of the pulse. I had demonstrated that the pulse is abnormally delayed in mitral insufficiency, and reflecting as to whether this delay might be contravened by any concomitant condition, I arrived at a conclusion which was afterwards published in the following words: "Nevertheless, the phenomenon, though constant in pure mitral incompetency, will probably be found wanting in cases of this lesion complicated with an open state of the aortic valves, for in the latter condition the base of

the arterial column rests against the sides of the ventricle, instead of against the aortic valves, and is advanced with the first movement of ventricular contraction, thus insuring a short interval between cardiac systole and arterial expansion.

The idea that aortic insufficiency produces delay of the pulse is certainly erroneous¹.

In March, 1880, opportunity presented for tracing a case of undoubted aortic insufficiency. The result is shown in figure 1². The cardio carotid interval measured only 1-32 second, and the cardio-radial 1-12 second.

Still referring to my own researches, I have proved diminution of delay of the pulse in other cases of aortic insufficiency, and have been able, also, to reproduce the same result on the schema. By way of illustration, simultaneous tracings from the schema are here presented. Fig 2 shows traces from the ventricle and aorta, with valves intact. The impulses were given to the ventricle at successively increasing arterial pressures. It will be noticed that after the first pair of waves, at which the pressure was in equilibrium and the waves are synchronous, the interval between the ventricular impulse and arterial wave increases with the arterial pressure. Thus, with the

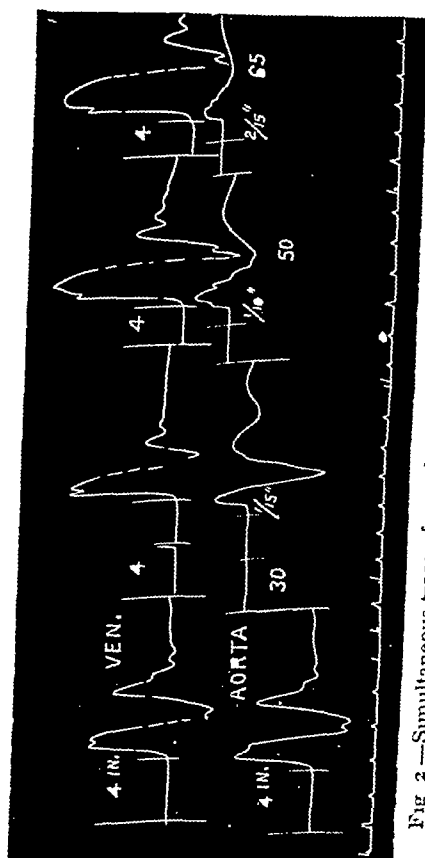


Fig 2—Simultaneous traces from the schema, with valves intact

pressure at 30 inches (water manometer), the interval is 1-15 second, at 50 inches 1-10 second, and at 65 inches 2-15 second. These traces represent normal

¹ *Cincinnati Lancet and Clinic*, March 22, 1879.

² *Boston Medical and Surgical Journal*, September 30, 1880.

action and lengthening of the cardio-arterial interval under augmentation of arterial pressure

Fig 3 shows the result of a repetition of the same experiment, only with the important difference that the traces were taken with the aortic valve removed, in representation of large aortic insufficiency Here

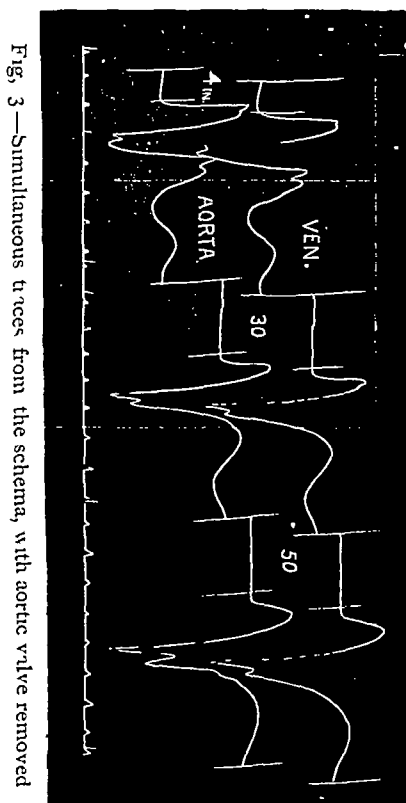


Fig. 3—Simultaneous traces from the schema, with aortic valve removed

the ventricular and aortic waves are synchronous throughout, and, besides, show a perfect parallelism of form

Rank also experimented on animals, producing in them artificial insufficiency of the aortic valves, and proved the same diminution of the pulse-retardation observed as in man

Thus experiments on man, on animals, and on the schema all concur in proving diminution of delay of the pulse in aortic insufficiency The testimony is ample and complete, and establishes the fact beyond question The acquisition is one of the triumphs of the graphic method, and affords a striking illustration of its power to redeem from error which otherwise had been perpetuated, and reveal the truth which otherwise had not been known

THE MECHANISM OF THE PHENOMENON

Our next inquiry relates to the mechanism of the phenomenon The conditions concerned that influence the measure of the delay of the pulse are, (1) states of arterial blood-pressure, (2) states of the arterial coats as to elasticity or stiffness, (3) modes of ventricular contraction, and (4) relative states of ventricular and aortic blood-pressure

1 It has been found that, other things being

equal, the rate of propagation of the pulse wave tends to increase with increase, and decrease with decrease of arterial blood-pressure Recent investigations, however, show that such modification from such cause is small at best, and frequently fails to manifest In aortic regurgitation the mean arterial pressure is usually diminished, yet not unfrequently, when the lesion is well tolerated, the pressure maintains, or even rises above, its normal level This cause, then, of modification of pulse transmission, would operate either against, or inadequately for, the production of the greatly abbreviated interval

2 No fact in this relation is better established than that the velocity of the pulse wave is proportional inversely to the elastic extensibility of the arterial walls In aortic insufficiency great expansion of the arterial walls is a notable phenomenon This is due to the enlarged and hypertrophied ventricle sending into the arterial system at each systole a large volume of blood, which distends the vessels, and in diastole escaping backwards permits corresponding retreat of the walls The walls themselves may not be more relaxed or extensible than ordinary, and the fact is the coats are often pervaded with atheromatous material, rendering them less yielding than in normal condition However, in the absence of indurative changes, the parietes under the strain become dilated and thinned, and more yielding, unless fortified by developing hypertrophy of the muscular layers Then no constant stiffening of the arterial walls obtains in aortic insufficiency on which can be predicated the very early appearance of the pulse in this lesion But even if the walls were of brass, this cause of quickened transmission could not of itself account for the great precipitation of the carotid pulse, inasmuch as the reduction considerably exceeds the entire transmission interval between the heart and carotid point

3 The mode of ventricular contraction, as quick or slow, exerts a marked influence on the amount of delay of the pulse My own recent experiments have shown this, but they have also shown that the modification is confined alone to the presphygmic interval of the systole of the ventricle Contrary to the conclusion of some other observers, my results demonstrate that the velocity of the pulse-wave is not in the least modified by the quickness or slowness of ventricular contraction The ventricular presphygmic interval is notably shortened by a quick and lengthened by a slow contraction of the ventricle In aortic insufficiency, although the coexisting hypertrophied left ventricle contracts with corresponding energy, there is no evidence that its initial systole is quicker than in normal action Then mode of systole, notwithstanding its modifying potency, cannot certainly be invoked in explanation of the phenomenon in question

4 It is the excess of blood-pressure in the aorta over that in the ventricle at the beginning of systole that measures with certainty the interval between the beginning of ventricular contraction and that of the aortic pulse When the aortic valves are intact this interval lengthens with increase and shortens with decrease of this excess, and if the pres-

tures should be in equilibrium the two events will begin simultaneously (See fig 2) But when the aortic valves are permanently open the pressures in the ventricle and aorta are always in equilibrium at the beginning of systole (the two cavities being in one), whether the mean pressure be low or high. In consequence of this oneness or equilibrium of pressure the heart's impulse and aortic pulse will be synchronous (See fig 3)

The transmission interval between the aortic orifice and point of observation of the carotid pulse is comparatively short, not averaging more than half the duration of the cardio-aortic or presphygmnic interval. Thus, by my measurements, the first averages 0.26 second, and the last 0.54 second, with pulse-rate at 75. In permanently patulous aortic valves the larger presphygmnic interval is practically obliterated, while only the smaller cardio-carotid transmission interval remains as the delay of the carotid pulse on the heart.

The above is the true explanation, and, if allowable to say it, to the writer is due the credit of its first recognition and announcement. Franck at first did not grasp the mechanism of the phenomenon he had proved, but vainly endeavored to account for it by the theory of accelerated transmission of the pulse wave. His later deliverances, however, on this point, are in perfect accord with the true rationale here set forth.

It is easy to explain the fallacy of an exaggerated delay of the pulse on the systole of the ventricle in aortic insufficiency. The enlarged ventricle suddenly filling from both the aorta by reverse, and the auricle by direct flow, communicates a shock so marked as to be mistaken for systole. This impulse occurring in the first part of diastole, and preceding the arterial pulse at such distance, gives the impression of enormous delay of the pulse. In figure 3 the length and steepness of the diastolic ascents show how easily the diastolic impulse would be taken for the systolic beat. The fallacy arose from an error of observation, which the graphic method was needed to correct.

THE DIAGNOSTIC VALUE OF THE PHENOMENON

Excessive diminution of delay of the arterial pulse, notably the carotid, is a sign of the highest importance in large aortic insufficiency. No other condition, or combination of conditions, except one to be considered, is capable of producing such marked precipitation of the pulse on the heart. The exception consists in the combination, found only in fever, of quick systole and tendency to equilibrium of ventricular and aortic blood-pressures, these conditions also invariably associated with frequent pulsations. The febrile condition, then, with quick cardiac systole, frequent pulse, and low arterial blood-pressure, is capable of reducing the cardio-carotid interval, the same as aortic insufficiency, to the value of the transmission time. These factors, when present, are well declared, and in their absence the graphic sign is pathognomic of the lesion in question. In positive value it outranks diastolic basic murmur, which, as well known, may originate in the aorta without regurgitation, or again with only slight regurgitation,

which takes place in the first part of diastole, whilst the altered valves are falling into position of closure. Besides, there is difficulty sometimes in distinguishing between aortic regurgitant and mitral direct murmur of the first part of diastole.

As to default of this sign, in large aortic insufficiency it never fails, except perchance in the presence of an extensible aneurism of the first part of the aorta. The fact that an aneurism with yielding walls produces delay of the distal pulse has been well established in these recent years. Then, in a case of large aortic insufficiency, complicated with a yielding aneurism of the ascending aorta, the precipitating effect of the valvular lesion would be more or less counterbalanced by the retarding effect of the aneurismal pouch, and the carotid pulse would observe, or approach, the normal amount of delay. If aortic aneurism be eliminated, the presence of abnormal precipitation of the carotid pulse is conclusive, in any case, of an open state of the aortic valves.

From this declaration it is plain that the writer does not admit, with François-Franck, default of the sign in the presence of concomitant cardiac valvular lesions. Co-existing aortic stenosis would give the characteristic sloping ascent, but the beginning of the pulse would be in no wise delayed. This has been demonstrated on man and the schema. Mitral regurgitation co-existing, auricle, ventricle and aorta would constitute one cavity, with blood-pressure in equilibrium at the end of diastole, and the blood would be as promptly sent forward into the aorta as in pure aortic insufficiency. Nor could mitral contraction, if present with aortic insufficiency, cause any delay of passage of blood from the ventricle, as the pressure in the latter at the end of diastole would always be equal to the aortic pressure. Hence, whatever the cardiac complication, there is no failure of abnormal precipitation of the beginning of the pulse as a sign of permanent aortic insufficiency.

But the fact must not be lost sight of that this sign, so positive and constant in large aortic insufficiency, will fail to manifest in the form of incomplete lesion, in which the valves permit of regurgitation in the first part, but effectually close in the last part, of diastole. In this state of things, when systole begins, the valvular barrier and excess of aortic blood-pressure being present, time is lost in overcoming the resistance, and abnormal precipitation of the pulse fails to occur. However, default of the sign in incomplete insufficiency is more than compensated in diagnostic import, in that the absence of abnormal pulse precipitation in a case of aortic regurgitation, certainly diagnosed by the ordinary physical signs, would indicate a partial and not complete insufficiency of the valves, and, aortic aneurism excluded, would be conclusive of this distinction.

In resume

1. Abnormal diminution of the retardation, or, in other words, abnormal precipitation of the arterial pulse, notably the carotid, on the systole of the ventricle in large aortic insufficiency, is a fact positively established, the phenomenon depending purely upon extinction of the normal ventriculo-aortic, or pre-

sphygmie interval Hence the phenomenon becomes an important diagnostic sign of this lesion

2 The presence of the sign is positive evidence of the existence of the lesion, provided only there is no quick febrile movement in the case

3 Defeat of the sign does not occur in the presence of concomitant cardiac lesions, but occurs only in the presence of a yielding aortic aneurism Hence,

4 Absence of the sign is positive evidence of absence of the lesion, provided only there is no aortic aneurism in the case

5 If the diagnosis of aortic regurgitation is otherwise certain, absence of the sign, aortic aneurism eliminated, is positive evidence of the incomplete nature of the insufficiency

ACUTE INFLAMMATION OF THE LUNGS IN YOUNG CHILDREN UNDER SIX YEARS OF AGE

BY A. PATTON, M.D., OF VINCENNES, INDIANA

[Read to the Section on Diseases of Children at the session of the American Medical Association June 1883]

That acute inflammation of the lungs in young children is marked by different phenomena, and runs a very different course from what it does in older children and adults, all medical writers agree, so far as I am informed. The division of the lungs of young children into lobules instead of lobes, and the minute size of the air vesicles, together with their highly membranous and vascular condition, would necessarily lead to important peculiarities in their diseases. From these and other causes children do not have true lobar inflammation of the lungs until, by the progressive incorporation of elementary parts, the lungs at a state of development that will admit of higher degrees of inflammatory action. It is affirmed by high authority that infants under the age of one year seldom if ever have inflammation of the lungs in any known form. They are, however, liable to have catarrhal fever and acute bronchitis, but nothing that resembles pneumonia. During the second year, and especially in the dentition period, they are apt to have such a complication as is styled inflammation of the lungs. This, however, is very different, both in pathology and symptomatology, from true pneumonia, but is equally apt to prove fatal. As the child grows, and its respiratory system develops into a higher state of perfection, it becomes subject to other forms of lung inflammation. Of course, the age at which this state of advancement takes place cannot be determined positively, as it depends partly on the vigor and health of the child. Some authors place the age at six years, others at five, and one thinks true lobar pneumonia may occur as early as three years. As a general rule, children are not liable to have true pneumonia until they are five or six years of age. The question then presents, what form of inflammation of the lungs do children have from infancy up to the ages just mentioned?

The older writers claimed that they had lobular pneumonia, while later writers have named the disease catarrhal pneumonia. But as there are several forms of inflammation of the lungs in young chil-

dren, it would probably indicate a sounder view of the pathology to name each kind in strict accordance with its nature and cause.

Before the wonderful discoveries in auscultation made by Laennec and others, there was but little distinction made between bronchitis and pneumonia. They were both styled inflammation of the lungs. This dark era, however, has given place to the reign of the bright sun of science that has cast its effulgent rays into the deepest recesses of the respiratory system, and reveals to the ear of the experienced auscultator every abnormal sound and diseased condition of the lungs. He can say here is the mucous râle of bronchitis, there the crepitating sound of pneumonia. A little higher up is hepatization, and in a spot not larger than a ten cent piece is softening of the hepatized lung.

While this is grandly true in the lung diseases of the adult and children over six years of age, we have to admit that in younger children we are compelled to rely more upon symptoms and less upon physical signs in the investigation of their diseases. It is true that by inspection, application of the hand, mensuration, percussion, and auscultation, we can decide some very important clinical questions as to the seat and nature of the lung diseases in young children. I regard it as far safer and better to study closely the symptomatology of children's diseases, and not rely too implicitly upon physical signs.

If a child has fever, heat of skin, loss of appetite, and a cough that is attended with cries of pain, we may know there is inflammation about the lungs, either in the bronchia, pleura, or lobules.

If we see the case at or near the commencement of the disease, we may conclude we have acute bronchitis to contend with, but which may, and doubtless will, extend to other tissues of the lungs if not arrested. If the disease extends no farther than the large bronchia, we need expect no serious results. But, unfortunately, the tendency is to pass into the minute vesicles, producing vesicular pneumonia. Then we have a very dangerous disease to contend with. This may be styled one of the forms of inflammation of the lungs in young children. Another complication that is apt to occur during the progress of acute bronchitis, is acquired atelectasis, or collapse of one or more groups of lobules. This is caused by tenacious lymph plugging up an air tube, which produces complete occlusion, cutting off the air to the adjoining lobules, which necessarily causes their collapse. This is a source of danger in two ways—by lessening the lung capacity, and developing lobular inflammation. We now have another form of lung inflammation, which may extend from lobule to lobule until a fatal termination results.

A still more serious complication is hypostasis, or passive congestion of that part of the lung that is most pendent favoring gravitation of the blood. This condition acts as a foreign body, which in most cases develops another form of inflammation of the lungs. This takes place as a result of weakened action of the heart, and a tendency in the blood to coagulation, favored, of course, by the child maintaining the same position. Another, and perhaps a more frequent

complication, is the extension of the inflammatory action from the bronchia directly to the lobules, constituting broncho-pneumonitis. This is the catarrhal pneumonitis of a late author, but as it is a consequence of the bronchitis, it would, in my opinion, be more proper to style it broncho-pneumonitis. If acute inflammation of the lungs in young children only occurred as a consequence of bronchitis, it would be most fortunate for the little sufferers. But such is not the case. Rubella, pertussis, variola, remittent fever, and even difficult dentition, are very apt to become complicated with inflammation of the lungs in young children, and often lead to a fatal termination.

One writer, Grisolle, says that in seven-eighths of all cases of gastritis, five-sixths of all cases of cancrumoris, one-third of all cases of enteritis, measles, and whooping-cough, one-fourth of small-pox, one-seventh of continued fever, one-sixth of all cases of acute inflammation of the brain, one-fourth of diseases of the heart, one-sixth of cancer and organic diseases of the liver, cirrhosis, and Bright's disease, there occurs this most dangerous complication—pneumonitis. It often occurs after amputation, and in extensive wounds, burns, etc.

No doubt, the leading factors in the development of this complication in so many forms of disease are hypostasis and hyperinosis, especially in the adult. In young children obstruction of the air tubes, causing atelectasis, is no doubt a frequent cause of this pneumonic complication, as well as hypostasis. As all the forms of pneumonitis in young children to which I have referred are secondary to bronchitis, or some other form of disease, we may justly style it as an accidental complication, and never idiopathic. It is not by any means an easy thing to determine just when this complication begins or where it is located. True, we may by percussion find dullness, indicating either passive congestion, atelectasis, carnification of the lung, or inflammation of the lobules, which may have assumed an imperfect form of hepatization, but we cannot say certainly which condition it is. Fortunately, however, it is not very important to diagnose these abnormal conditions accurately, as the treatment is the same in all, in young children, varied, of course, by the gravity of the symptoms, stage of the disease, and such other conditions as should influence treatment in the adult. I do not underrate the value of auscultation in this form of lung trouble, as we may be able in some cases to detect the crepitating sound of pneumonitis, but it is an uncertain guide. When I do employ auscultation, I do not pounce down upon the poor trembling child with one of Camman's double stethoscopes like the unicorn upon the frightened gazelle, but quietly apply the ear to the little sufferer's chest, which is a better method than most stethoscopes—I mean for young children. A far better stethoscope than Camman's or any hollow tube is one made of solid hard wood, which transmits sound with more rapidity and far more accuracy than the hollow tube. Sound in air travels at the rate of 1190 feet per second, while in hard ash wood it travels at the rate of 15,314 feet per second (Norton's Natural Philosophy). If

we use a tube we get a double sound, the first reaching the ear through the hard wood or rubber, the other by the air in the tube, which is calculated to produce confusion. When the tubes are inserted in both ears we have a still greater source of confusion, as the hearing power in most persons is not equal in both ears.

If we observe the symptoms closely, we will be able to determine, by the increased frequency of the pulse, the frequency and irregularity of the respirations, the moaning of the little sufferer, and the higher temperature and tight cough, that a dangerous lung complication has supervened. We must not conclude that because young children do not have a true form of pneumonitis, there is no danger from the kind of inflammation of the lungs they do have, for it may be safely affirmed that three-fourths of all deaths before the age of six years are caused either directly or indirectly by inflammation of the lungs and acute bronchitis. Then the question of treatment becomes a very important one, indeed.

In devising methods of treatment in all diseases, we should be guided by sound views of pathology and an accurate knowledge of the action of the remedial agents we employ. Any other practice is empirical, and not in any sense scientific. In the discussion of methods I may differ with some of our highest authorities. But if I give good, sound, scientific reasons for my plans of treatment, they ought, at least, to secure your thoughtful and serious consideration.

Most, if not all, authors advise that the heart's action of these delicate young patients should be moderated by such powerful nervous sedatives as aconite and veratrum viride. This I must regard as a dangerous practice, for the reason that the tendency in all cases of inflammation of the lungs in young children is to debility and depression of the vital powers. The imperfectly decarbonized blood in cases where the lungs are seriously disabled is itself a powerful poison to the great nerve centres, tending to a weakened action of the heart and a lowering of the vital powers, leading towards a fatal result. Any medicines that weaken the action of the heart, as aconite and veratrum viride, favor capillary engorgements, hypostasis, abscesses, suppuration, and gangrene. And, as the disease so certainly tends in the direction of these alarming complaints, we should do nothing that is calculated to lead to these very results. The old practice of bleeding and tartar emetic was not more dangerous than the one just referred to. Opiates are advised to relieve pain, cough, and restlessness, and alcohol is highly recommended to sustain the vital powers and to stimulate the heart to more vigorous and energetic action. I object to both these agents upon the same ground—they prevent the elimination of carbonaceous matter through the lungs, prevent the excretion of urea and other impurities through the kidneys, thus favoring the course of the disease by holding these poisons in the blood and determining them to the brain and great nerve centres, producing impaired vital powers, and leading directly to the worst forms of cerebral complication, as delirium, convulsions, and coma.

A special objection to alcohol is that it favors coagulation of the blood, leading to embolism and hypostasis—and the still more potent objection, that it increases hyperinosis, which must necessarily develop a higher degree of inflammatory action, involving contiguous tissues in the consuming flame.

If these agents are objectionable because they favor the progress of the disease, a most important question presents itself: What is best calculated to *arrest* the disease? If a building is on fire the first thing is to destroy the combustibility of the burning material. This principle holds good in inflammation. Subdue as speedily as possible its main supporters. It is admitted that in pneumonitis, either in adults or young children, there is hyperinosis before the pneumonitis is developed, and this constitutes the main factor in the disease. Destroy the excess of fibrine, and you have the disease under control. If there was no hyperinosis in inflammation of the lungs in young children, as some contend, we would only have the mildest form of catarrhal fever. I admit that it is far less than in older children and adults, but there is quite enough to produce the most disastrous results and destroy life. The many forms of embolism, the plugging of the air tubes by coagulating lymph, producing atelectasis, the inflammation resulting from hypostasis, and the extension of the inflammation from the bronchia to the lobules, and from lobule to lobule and from tissue to tissue, are unmistakable evidences of hyperinosis, or excess of fibrine in the blood.

It is admitted by all writers on the subject that the exudate is sufficiently fibrinous to produce an imperfect form of hepatization in most cases. This is another proof of hyperinosis. How to efficiently meet this indication is an important question. The observing housewife long ago discovered that if she had a tough bird to deal with, by applying bicarbonate of soda in liberal quantities at night the bird would be nice and tender for breakfast. The alkali had dissolved the fibrine in the bird, which is just what we want to do in the blood of the pneumonic patient. In mild cases I begin with the benzoate of soda, as a cough syrup. If, however, the case is threatening, I use the more powerful agent, ammonium carbonate, in doses of one to three grains, dissolved in water and syrup, and give every two to four hours. This destroys the tenacious quality of the mucus secreted by the bronchia, and causes it to be thrown off in the usual way, and not to adhere to the walls of the air tubes, interfering with the respiratory functions. This form of medication should be kept up throughout the attack, as it will prevent those dangerous complications to which I have frequently referred in this paper by reducing the excess of fibrine. Another remedy, which accomplishes mechanically the same result in removing the tenacious mucus from the bronchia, is an emetic of sulphate of copper or alum. This is a valuable means of relief, and should not be overlooked.

This ammonium carbonate is not only a powerful defibrinizer, but is equally a decarbonizer, which is effected by its chemical action and the elimination of this poisonous agent through the kidneys and

lungs. It is also a safe and very efficient stimulant—far safer and better than alcohol in any form. Another valuable procedure is heat and moisture in the form of a flax-seed or corn-meal poultice, applied to the entire thorax, and kept up with great regularity. This is a thousand times better and safer to relieve cough, pain, and restlessness than opiates.

A remedy that has a tendency to expand the capillary vessels and prevent congestion and gangrene is eucalyptus, a medicine that I have found very useful in pneumonic inflammation of young children. If there is any malarial complication we must not fail to give quinine, and if there are signs of weakening of the heart's action we may give with advantage tincture of digitalis, which is our most reliable heart tonic. If a counter-irritant is needed, we may employ a very mild croton oil liniment, or mustard mixed with the poultices may be used instead.

Mild aperients or enemata may be given as required.

The limited time allowed me forces this paper to be only suggestive, and not by any means exhaustive. If, however, it should encourage a spirit of inquiry, and a more thorough investigation of the pathology and treatment of the inflammatory diseases of the lungs of young children, I will be fully compensated for the labor and thought devoted to its preparation.

THE RADICAL CURE OF CERTAIN FORMS OF HERNIA BY A NEW OPERATION.

BY REUBEN A. VANCE, M.D., CLEVELAND, O.

Professor of Operative Surgery and Clinical Surgery in the Medical Department of the University of Wooster.

[Read to the Section of the American Medical Association on Surgery and Anatomy.]

The study of nature's method of curing an oblique inguinal hernia, shows there are two important processes at work—one, a band of adventitious tissue about the neck of the sac constantly tending to contract and close the abdominal opening at the inner ring, the other, the return to place of the two layers of transversalis fascia, the separation of which originally permitted the viscera to protrude, and the reunion of which forms a valve strong enough to prevent a recurrence of the hernial protrusion. Both processes must operate if the patient is to be cured. The frequency with which these measures are interfered with by local conditions, explains why so few patients with hernia recover spontaneously.

Trusses, by keeping the viscera in place and allowing the structures about the neck to contract, favor the cure of the lesion. The same is true of certain surgical operations. A moment's consideration of the anatomy of oblique inguinal hernia, and a glance at the pathological processes in operation in such cases, will show why so few are permanently cured, despite the perfection of nature's processes for the accomplishment of that end. The neck of the sac can not contract, for it is almost constantly distended by some part of the abdominal viscera. The displaced folds of transversalis fascia cannot return to their proper position, for the same reason. Not only

RADICAL CURE OF HERNIA BY A NEW OPERATION

[AUGUST,

this, abdominal pressure tends to dilate the hernial orifice, while the protruded viscera force the inner ring downward and towards the middle line. Nevertheless, the surgeon can readily return the hernia, and place the parts in such position that nature can employ her reparative powers to best advantage. Examine an oblique inguinal hernia in the dead body, and it will be found that by proceeding in a certain way the sides of the inner ring—it matters not how largely it may be dilated or how far displaced—can be brought together. To do so, however, traction must be made upon the segment of the circle next the median line, so as to draw it downwards and inwards. This proceeding converts the ring into a slit, the long axis of which is directed downward and inwards. One or more stitches properly inserted will hold the parts in this position. Finally, the pillars of the external ring can be transfixed and united by in apposition in the same way. Experience abundantly attests that such is the fact. That the reparative processes may be understood in their completeness, it must be borne in mind that peritoneum differs from integument or mucous membrane, in that to procure union it suffices to press serous surfaces together, while to unite either of the others the severed edges must be brought together, and retained in apposition until adhesion occurs. Consequently the pillars of the inguinal outlet, when apposed in the manner described above, adhere and blend together within a few hours, in time the marks of the oblique slit at the inner ring disappear by the gradual contraction of the band of adventitious tissue that marked the neck of the hernial sac, the formerly separated folds of transversalis fascia are brought together and firmly blended by the same process, while the attachment of transversalis fascia to the inguinal canal, and the serous walls of the external ring, complete the steps that mark the re-establishment of such a valve as alone can make this weak portion of the abdominal wall sufficiently strong to resist the tendency to protrusion of the abdominal contents.

I will mention in this connection that I now have a patient preparing for an operation for the cure of right inguinal hernia, who formerly had double hernia of that character. In this case the left external ring and inguinal canal are still open, protrusion is prevented by contraction of the neck of the old sac, uniting the folds of transversalis fascia. Here we have one of nature's conservative provisions effecting a cure, occasionally this process is prevented by displacement of the band of adventitious tissue at the neck, instead of the opening between hernial sac and peritoneal cavity closing and the continuity of the transversalis fascia being re-established, thus curing the hernia, the constriction is forced into the canal, and a partial diaphragm is formed between the neck and fundus of the hernial sac. Although cases similar to the one above alluded to, demonstrate that the transversalis fascia is the main element in preventing hernia, yet experience shows that it is desirable in operating for the cure of rupture to obliterate a portion of the sac in the inguinal canal as well as close the internal and external rings. Devise some plan for carrying the inner portion of the transversalis fascia into contact with the outer, at the internal ring, and the other steps in the attempt to convert the open inguinal canal into a resisting valve are easy of execution. The following method has been very successful in my hands.

Place the patient in a recumbent posture, reduce the hernia by invaginating the scrotum, determine the situation of the internal and external rings and the axis of the inguinal canal. Mark these boundaries on the skin with tincture of iodine, and then draw a short line at right angles to the axis of the inguinal canal, from the upper and inner to the lower and outer border of the internal ring. Next force the unarmed end of a Dowell's hernia needle through skin, fascia, aponeurosis of the external oblique, and tissues intervening between the latter and the parietal layer of the peritoneum, into the abdominal cavity, locating the puncture at the lower and outer end of the short line drawn at right angles to the axis of the inguinal canal.

Carry the end of the needle cautiously upward and inward, in the direction of the just-mentioned short line, until its point is about half an inch beyond the border of the inner ring, then force the point straight through all the structures above it and make it penetrate the skin. The end of the needle here, tofore in the surgeon's hand is charged with a strong strand of silk, and in the further manipulation of the instrument great care must be exercised that none of the abdominal viscera be needlessly injured. The threaded end of the needle is passed into and out of the abdominal cavity, but the instant its point passes beyond the upper and inner border of the sac, its course is changed, and instead of drawing the thread ed end out, the latter is forced downward through the tissues of the inguinal canal by the side of, but without the lower and outer border of the internal ring, and then into the same canal in aponeurosis, external oblique, subcutaneous fascia and integument, the needle made when first introduced. Thus the strand of silk enters and leaves by the same canal so far as the structures between the aponeurosis of the external oblique and the skin are concerned, but below that all is different. In effect a noose is thrown from the fixed layer of transversalis fascia to the movable one, and the latter with its peritoneal envelope and intervening adventitious tissue of the neck of the sac, is drawn downward and outward, and so fastened in its new position as to obliterate the internal ring without injuring the spermatic cord.

A single suture used in this manner initiates reparative processes that alone suffice to prevent hernial protrusion

The first suture is introduced, but not tightened, its extremities are left in care of an assistant, and the needle is again threaded for use. Its insertion for the second suture is peculiar, and is in imitation of Dowell's plan, the integument and all loose subcutaneous tissue are elevated between the thumb and fingers of the right hand, if the patient has left inguinal hernia, the point of the thumb just touching the line marking the axis of the inguinal canal. The needle is grasped in the left hand, and its unarmed end is thrust through the duplication of tissues, its point entering about midway on the line marking the axis of the inguinal canal. As soon as the point appears through the fold of skin it is grasped and the armed end drawn into the tissues. This manœuvre carries the end of the needle armed with silk into contact with the aponeurosis of the external oblique, the needle is now so manipulated that this extremity is forced through the aponeurosis into the inguinal canal over the spermatic cord, through the posterior wall of the canal and thence out of the abdominal wall at the point the curvature of the needle causes it to emerge. The unarmed end follows, but is not permitted to come further than the surface of the aponeurosis of the external oblique, the direction of the needle is reversed, its point kept close to the surface, of the aponeurosis and finally brought out at the opening through skin and superficial fascia it made when inserted. This makes a noose that can, in oblique hernia, simply bring the posterior wall of the inguinal canal into contact with the anterior, or in cases of long standing in which the internal opening is displaced, attach the margins of the pillars of the external opening, as well as approximate the surfaces of the canal.

A third suture is carried into place in the same manner, but it is inserted into the pillars of the external ring just above the level of the cord, and its extremities emerge from an opening at the lower end of the line marking the axis of the canal. During these manipulations the index finger of the operator invaginates the scrotum and occupies the inguinal canal, in which position it can guide the needle in its passage through the parts about the internal ring and inguinal canal. The sutures passed, they are carefully tightened, beginning with the one first introduced, and the influence of each estimated by the finger in the canal before being finally fastened. A medium sized key separated from the abdominal wall by four folds of antiseptic gauze, should be used to receive the ligature knots. Some point on the ring of the key will do to support the knot on the first suture, the handle of the key will bear the others. The patient had better be anesthetized with ether for this operation, as the surgeon can then proceed leisurely with his work. After the ligatures are secured the patient should be removed to his bed, and for the next week maintain the recumbent posture. At the end of seven days the bandages are removed and the ligatures taken out. Should any local tenderness develop, the surgeon should at once control it with rubber bags of ice.

I have operated in 32 cases by Dowell's method, in the 19 cases in which I have used the procedure set forth above, the result, so far as the present condition of the patient is concerned, is all that could be desired.

MEDICAL PROGRESS

OPERATIONS ON THE KIDNEYS — *Nephrectomy* —

Mr J Knowsley Thornton gives the record of three successful cases of nephrectomy in the *Lancet*. The first was published June, 1880, but is again given in connection with the others. It was performed on a child of seven, who had suffered with swelling of the abdomen since she was two years old. The diagnosis of renal tumor having been made, an antiseptic aspiration was performed, resulting in the removal of six pints and a half of rather dark and cloudy urine. Two months later the tumor had re-filled and the left kidney was removed through an incision in the median line to the left of the umbilicus. Bichloride of methylene was the anæsthetic used. The ureter was found to be merely a thin fibrous cord. Wound healed by first intention on the sixth day, and the patient was running about the ward on the fourteenth day.

The second case was in a woman of 26, who, after her third pregnancy, eleven days after labor, suffered from inflammation in the right iliac fossa, followed by pain and swelling in the left leg. Six weeks after delivery pain persisted in the right side, which was spasmodic and along the course of the ureter to the right thigh. A fluctuating tumor of considerable size was found in the right loin, and the urine was loaded with pus, ammoniacal and offensive. The kidney was cut down upon through the loin, and Mr Thornton notes the much greater amount of hæmorrhage as compared with the abdominal section, and the very imperfect knowledge to be obtained as to the condition of the kidney. A sacculated kidney was found, with very offensive pus, two drainage tubes were introduced, the greater part of the wound closed and antiseptic dressings applied. The second day after the operation the bladder urine was free from albumen. The urine soon showed signs of carbolism, and on the fifth he changed to eucalyptus gauze, but in a very short time pus soaked through sixteen layers of the gauze and teemed with bacteria. Ultimately the wound healed fairly well, but the temperature rose, pain increased, the appetite failed, and thirty five days after the first operation the kidney was removed through the abdominal walls by an incision along the outer border of the right rectus abdominis. After removal the wound was sponged with tincture of iodine, and as there was still some oozing, perchloride of iron was applied, a drainage tube was used, the wound closed, and the end of the ureter brought outside and fastened with a pin. The kidney weighed 1 lb 2½ oz. The wounds healed completely on the eighteenth day, after which the patient passed from 7 pint to 1 pint and a half of healthy urine daily. The constitutional disturbance was decidedly less after the nephrectomy than after the nephrotomy.

The third case was in a woman, æt 58, suffering from a large, fluctuant tumor in the right side of the abdomen, containing pus, which had been removed four times by aspiration, pus in the urine, and chronic bronchitis was present. The operation was through the abdomen to the outer side of the right rectus abdominis. The kidney was first tapped and twenty pints of pus removed. The kidney was enucleated with difficulty, and the cut ureter attached to the outer edge of the wound. After all the sutures were fastened a sponge was missing, some were then removed, and the sponge found in the bottom of the capsule, causing the operation to last three hours. The kidney weighed 4 lbs, 7 oz, consisting of two large chambers, with a round opening between them. The cause of all the mischief was a small, umbrella-shaped stone, its front being firmly wedged into the mouth of the ureter. There were no complications, the wound healed slowly, and two months later she was strong and well.

Mr Thornton, at a meeting of the Royal Medical and Chirurgical Society, also reported a case of a woman æt 37, who suffered from a fluctuant tumor of considerable size, in the right side of the abdomen, with a red, tender and pointing swelling in the right loin, which was freely incised, discharging fluid with an immense quantity of cholesterine, was drained and treated antiseptically, healing in about six weeks. Two months later the wound opened, and again discharged, healing slowly, this accompanied an attack of gout in both feet. Two years later she was operated on by Mr Thornton for right ovarian tumor, which was removed. While the abdomen was open he examined the kidneys and ureters. The right kidney was large and sacculated, and its ureter was much enlarged, especially at the pelvis rim. The left kidney and ureter appeared quite normal. The recovery after ovariectomy was rapid, but in six weeks the swelling on the right returned and discharged as before. Six weeks later there was a similar discharge from the left iliac region. Fifteen months later the wound in the right side again opened, and discharge went on for fourteen months, without apparently affecting her health at all. Two months had elapsed since its last closure, and she is in excellent health.

Dr, Henry G Rawdon at the same meeting reported a case of nephrectomy with lateral cystotomy for rupture of the kidney, consequent upon a fall, in a boy æt 12. The right kidney was removed on the seventeenth day by lumbar incision, on the twenty-first day lateral cystotomy was performed, and a free drain for the urine established. Death took place on the fortieth day from pyelitis and circumscribed suppuration of the left kidney.

Sir T Spencer Wells reported the removal of an enlarged cancerous kidney, in a man æt 58, with death on the fifth day. He dwelt on the importance of uniting, in all cases of nephrectomy by abdominal section, not only the divided peritoneal coat of the anterior abdominal wall, but also the divided peritoneal covering of the kidney.

Prof J Marshall gave a case of traumatic suppurating hæmatoma, connected with the left kidney, in a girl of 13, which was treated by puncture and

drainage for a little over three months with recovery. The fluid withdrawn contained 55 per cent of urea, whereas the urine contained from 24 to 36 per cent. Although there was no history of hæmaturia, the urinous odor given off on boiling the fluid, and the high percentage of urea it contained, pointed to a possible laceration of the kidney itself.

Mr Berkeley Hill, in a woman, married, æt 26, suffering for some years from attacks of pain in the right hypochondrium, with vomiting, found a soft, fluctuating swelling in the right lumbar, and partly in the umbilical and iliac regions. The urine contained pus and albumen. After aspiration had been performed, resulting in the withdrawal of $4\frac{1}{2}$ oz of pus, the swelling rapidly enlarged, was laid open and found to be a distended kidney, from one of the recesses of which he extracted an irregular calculus, weighing 64 grammes. Urine ceased to discharge from the wound 31 days after the operation. There has been no return of pain, the kidney can be felt as a tender, firm mass and there is still pyuria.

AFFECTION OF THE EYES ASSOCIATED WITH NORMAL MENSTRUATION—Dr M Landesberg of Philadelphia gives two cases in the *Centralb für prakt Augenheilkunde*. The first is a case of herpes of the cornea, in a girl of 15, who 7 months before had menstruated for the first time, the flow returned regularly and was normal in duration and degree, with some pain in the back and head as premonitory symptoms. She was seen at six succeeding menstrual periods, when each time there was a recurrence of the eruptions, after it had disappeared entirely during the intervening period, with one exception which is noted. At the first period at which she was seen, the eruption affected the right eye, with a slight injection of the left, at the second period, both eyes were affected, at the third, both, at the fourth, the right only, but the condition persisted up to the time of the fifth, when it was increased in severity, at the sixth, the right eye alone, and at the seventh, both eyes were free. The family removed and the case was lost sight of.

The second case was in a negro girl of 14, strong, well built and in good general health. Her menses were established 10 months previously, were regular and without trouble. Among the premonitory symptoms were blood pressure in the head, noises in the ears, sparks before the eyes, and an unusual feeling of warmth in the whole body. Twice nose bleeding had taken place with the commencement of the menstrual flow. She was brought before the doctor, to ascertain what was the matter with her right eye, of which at several periods in the last few months she had complained of the loss of sight, this it seems was coincident with the onset of the menses, improved with its close, and in 8 or 10 days perfect vision returned, this had already occurred three or four times. The right eye was strongly injected, with a normal cornea and iris, S= $\frac{10}{100}$ Jaeger 10. Field of vision free. With the ophthalmoscope, aqueous humor red, and at the base of the anterior chamber a thin layer of dark red blood. After dilatation of the pupil, the vitreous humor was clear, there was a slight venous

hyperæmia of the retina, and a marked curving of the vena ophthalmica superior. The left eye was normal. The blood was reabsorbed and normal vision restored in about 10 days.

Two days before the next menstrual period, Oct 20, the eyes were again examined and found to be normal. The girl complained of blood pressure in the head and of pains in the back. The ears felt warm, the face was heated, the breasts were hard, and the nipples turgid, perspiration was marked. Oct 21, increased blood pressure in head, ears and face hot, hands warm and moist, ciliary vessels of the right eye strongly hyperæmic.

On the evening of Oct 22, appearance of the menses coincident with a dark red cloud before the right eye. Twenty-one hours later an examination showed the following: Right eye, marked venous hyperæmia of the conjunctiva of the eye-lids, aqueous humor red. At the base of the anterior chamber a thick layer of bright red blood, at the fundus of the eye venous hyperæmia $S = \frac{10}{10}$ Jaeger 8. Field of vision free. Left eye, normal. Spontaneous resorption of the blood and return to normality inside of eight days. At the following menstrual period the same condition and course was observed. At the December menstrual period the same condition was repeated. April 5, the girl was three months pregnant, and the right eye had remained normal since the December period.

SPONTANEOUS DEVELOPMENT OF GAS IN THE BLADDER—M. F. Guiard has collected a number of these cases which he reports, in detail, in the pages of the *Annal des Malad des Organes Genito-Urinaires*, with the conclusions that, where there is no abnormal communication between the urinary passages and the alimentary canal, the phenomenon is very rare. Its clinical symptom is the escape of gas through the penis, and seems to be connected with a special fermentation of the urine, which is only observed in those cases of glycosuria that have been submitted to catheterism. The sugar, under the influence of particles of ferment introduced by the instrument, has resolved itself into alcohol and carbonic acid. This, then, is a symptom of glycosuria, but it seems to have no value in prognosis of itself.

PROLAPSUS OF THE RECTUM TREATED BY INJECTIONS OF ERGOTINE—M. Jette has treated with success sixteen cases by the use of ergotine in solution with cherry laurel, 1 gramme to 5 grammes, injecting 15 to 20 and 25 drops every other day. The needle is introduced about 5 millim from the renal orifice, parallel with the walls of the intestine, and should penetrate to the depth of 2 to 4 centim into the thickness of the sphincter fibres. The injection should be introduced gradually on account of the pain it produces. The pain is at first very severe and lancinating, then becomes dull and constant, lasting for several hours. The treatment may take a few days or several weeks to effect a cure. With a feeble dose there is a frequent desire to go to stool and to urinate, with strong doses there is a spasm at the neck of the bladder, dysuria, or a retention of urine for eight

or ten hours. In a few patients Vidal has noted vertigo, a tendency to syncope, a painful sense of constriction about the heart, with a hard, firm and somewhat slow pulse. The later injections are more active than the first, and seem to indicate a cumulative action, as in digitalis. Vidal uses this means also, as applied to old hæmorrhoidal tumors, which protrude and are accompanied by paralysis of the sphincter. The tumor is forced either from its cutaneous or mucous surface, becomes dusky and tender, but is very favorably modified without forming abscesses—*Therap Contemp Med et Chir*.

A CASE OF URETHRAL CALCULUS—Cultivator, æt 36, admitted to hospital for obstruction in the passage of urine, which had been passed with great difficulty and only in drops for the past five days. History of chronic gonorrhœa of two years duration, but none of stricture. On examination the penis was swollen and œdematous, and a hard, painful tumor, the size of a small orange, was found just in front of the scrotum. A No 6 silver catheter was passed into the urethra, but its progress was impeded at the seat of the tumor, and its contact with a stone evidenced by the metallic click and a grating sensation. He was placed under chloroform, an incision about $1\frac{1}{2}$ inches long was made over the inferior wall of the urethra, and a stone measuring $2\frac{1}{4} \times 1\frac{1}{2} \times 1$ inch, weight 980 grains, was removed. In six weeks time, with the use of carbolyzed dressing and catheterism, the wound was represented by a minute fistula. The stone was a uric acid calculus—*Indian Medical Gazette, Calcutta*.

DEATH FOLLOWING A RECTAL INJECTION OF SOL ACID CARBOL—A case has recently been concluded in the High Court of Calcutta, to which the *Indian Medical Gazette* devotes considerable space, and where a boy of five had been suffering from bloody diarrhœa and the presence of thread worms. The physician who was called to relieve this condition injected 18 ounces of a 1 in 60 solution, representing 144 grains of carbolic acid and warm water. A few minutes were occupied in administering the injection, during which the child felt no pain, but while the enema was being retained by pressure the child's head dropped on one side, and there was a state of complete collapse, and it remained unconscious for six hours, with total loss of reflex power. Artificial respiration, the battery, injections of oil and of milk, and twice of ammonia, were employed until some reflex action was induced. Four hours later the child became conscious and partook of liquid food, but five and a half hours later still—that is, fifteen hours and a half after the administration of the enema—the child died in convulsions. Three or four attacks occurred, which were not violent or prolonged. There was no post-mortem held, and the physician was found guilty of causing death by a rash and negligent act.

SPONGE GRAFTING—Dr de Lantour in the *Australian Medical Journal*, gives a case of a severe burn in a child of four years, where a band of

tricial tissue extended across the back of the knuckles, across the thumb, extending far down and also up above the wrist. The hand was bent backwards, and the fingers back on the hand, and the thumb dislocated backwards. He divided the cicatrix at intervals of one-half to three-quarters of an inch (the cicatrix was generally the thickness of the little finger), and dissected up a little from the bottom of each incision, so as to loosen the cicatrix. The dislocation was then easily reducible, and the hand and fingers easily brought into their natural position. A splint was applied to the palmar surface, retaining the parts normally, and there was a gap in each incision of about one-half an inch. In each of these gaps he fitted a piece of sponge (fine Turkey sponge, washed in a solution of iodine, then of salicylic acid and borax, and then in a solution of salicylate of soda), allowing the sponge to overlap, in order to provide for possible shrinking. The sponge was retained in place by strips of salicylated isinglass silk plaster, and the whole dressed with dry lint, on which was spread an ointment of eucalyptus oil and vaseline, 51 to 51. The grafts adhered, the granulations grew through the sponge, there was some suppuration, the granulations as they grew pushing out the discharge in front of them. They ultimately enclosed the sponge, and a new cicatrix grew over the top, leaving an elongated cicatrix and the thumb in its natural condition. Nine months later the original cicatrix had somewhat contracted, and the grafts show quite distinct from the plain fibrous band. In commenting on his case, Dr de Lautour expressed it as his intention in his next case of enucleation of the eye-ball, after removing the eye-ball, to insert a piece of sponge within the capsule of Tenon, and stitch the conjunctiva over it, as calculated to make an excellent stump.

OBSTRUCTION OF THE BOWELS, FÆCAL VOMITING RECOVERY—Mr George R Fraser, L R C P E, of Wark-on-Tyne, Northumberland, writes

"On April 11, at 10 P M, I was hurriedly sent for to visit a lady, aged about 45, who was said to be suffering from 'cramps of the stomach.' She was in bed, vomiting frequently, and complained of intense pain of the stomach and bowels. Her pulse was little affected, her tongue clean, her temperature normal, and her bowels had been freely moved twenty-four hours previously, after the use of aperient medicine. I prescribed bismuth with hydrocyanic acid, and also a full dose of tincture of opium, under the impression of having to deal with a case of acute gastralgia. The treatment had no marked effect, for, upon visiting her five hours after, I found she had passed a restless and sleepless night. The pain was sometimes acute, and the nausea and vomiting recurred frequently. I was shown a hand-basin containing upwards of a pint of distinctly fæcal material which she had just vomited, and her breath had also a strongly fæcal odor. The real nature of the case was now apparent. On careful examination I could ascertain no cause of strangulation, no external hernia, nothing abnormal within reach by the rectum, and no abdominal tumor existed, and fæcal

impaction could not be looked upon as probable. Copious injections failed to bring a trace of fæcal matter from the bowels, and only served to show that obstruction was complete. The abdomen was distended, and the pain, as already noticed, often most severe. The early appearance of fæcal vomit was remarkable. In all the circumstances I ascribed the symptoms to a twist, or to an intussusception at some point in the course of the small intestines. If due to intussusception, might not the purgative taken by the patient have had something to do with its production? We know that invagination is apt to arise from causes that produce increased irritability of the bowel. The stercoraceous vomit enabled me to form an early diagnosis, a point of the greatest moment in these cases, as it enables us to adopt a rational course of treatment. Better leave such cases entirely to nature, than administer a single dose of drastic medicine. No time was lost in placing the patient under the influence of opium. The drug was given as tincture, but generally in the form of powder, frequently repeated and continued throughout the attack, and no food of any kind was taken, for which, indeed, the patient expressed no desire. Ice was not procurable, but cold spring-water and soda-water were enjoyed in small quantities, frequently repeated to allay thirst. The effect of the opiate was soon apparent. Vomiting became less frequent, no doubt from the influence of the drug in controlling intestinal peristalsis, and the patient became comparatively easy and had some rest. The characteristic vomit continued to recur at much longer intervals. Occasionally the rejected material was merely a greenish fluid, consisting, no doubt, of the water swallowed mixed with bile. The symptoms were now less acute, but distension increased. Warm fomentations were constantly applied, and injections given occasionally. On the third day she was seen in consultation by Dr Ridley, of Gateshead, who suggested operative means, or at least tapping, for the purpose of relieving the tympanites, which was now becoming extreme, and that possibly the bowel might right itself. Her friends, however, were averse to any form of surgical interference, and the treatment was continued as hitherto, with the addition of nutritive enemata, and the free use of belladonna liniment to the abdomen as recommended by Dr Ridley. The opiate maintained its soothing influence, but the symptoms became more urgent. Hiccough was constant in the evening, tongue red and dry, pulse 134, temperature not taken. She had another good night, and in the morning looked decidedly better than on the previous evening. She had two attacks of fæcal vomiting during the day, but rested well. It was now the fifth morning, and the last upon which sickness and stercoraceous vomit appeared. Her pulse was good, and her expression cheerful. In the afternoon she informed me that 'something had liberated itself in her inside,' and that she was passing wind since I saw her last. A liquid motion followed soon after from the bowels, which contained a few firmer pieces of fæces of the size of hazel-nuts. From this date her improvement was uninterrupted. She soon regained her

usual health, and has since remained perfectly well

"Invaginations are said to be of frequent occurrence, giving rise to temporary derangement of the bowel, and they are also believed to become soon disentangled by the normal peristaltic movements. If this were a case in point, the favorable result was probably due to the free use of opium. Had purgatives been used fatal strangulation would, I think, have inevitably supervened. A timely diagnosis would render the purely medical treatment of these cases more successful than it has hitherto been"—*British Medical Journal*

GALUM APARINE AS A REMEDY FOR CHRONIC ULCERS—Dr F J B Quinlan, M D, Dubl, F R C P, Physician to St Vincent's Hospital, Dublin, has treated cases of chronic ulcer with great success, by means of poultices made from "Cleaver's" (*galum aparine*). Respecting a very bad case of senile ulcer, Dr Quinlan writes: "We had now come nearly to the end of April, and our failure in this case was complete. It appeared to me that now was the time to try the *galum aparine*, which was beginning to peep out in all the hedgerows about Dublin. An ample supply for this and other less severe cases has since been kept up, and it has been used with the most marked success in the following manner: Grasping in the left hand a bundle of ten or twelve stalks, with a scissors held in the right hand, the bundle is cut into junks about half an inch long. These are thrown into a mortar, and pounded into a paste. This paste, which has an acrid taste and slightly acrid smell, is made up into a large poultice, applied to the ulcer, and secured with a bandage. It is renewed three times a day. Its action appears to be a slight steady stimulant, and powerful promoter of healthy granulation. Its effect in this most unhelpful case was decisive and plain to all. Healthy action ensued, and has since steadily continued, and, after a month of treatment, both ulcers have been reduced to considerably less than half their original size. If this action continue, which I have no reason to doubt, the cure will be accomplished within a measurable and short period. The patient is in the ward, and anyone can see the great amount of new dermatisation which has been effected during the month." Dr Quinlan was equally successful in several other cases. He continues:

"A difficulty at once suggests itself as to its general employment, viz, that in winter and spring it is not to be had at all. It appears to me that this difficulty can be effectually met by the method of ensilage, by means of which green food for cattle has, for the last few years, been kept perfectly sweet and fresh by burying it in silos under the ground. This plan is generally known, but all particulars about it can be learned in the pamphlet of Mr Thomas Christy, F L S (Christy and Co, 155 Fenchurch Street, London, E C). In the case of the *galum*, the process would consist of cutting the herb very fine, ramming it down by screw-pressure into a glazed earthenware jar with an air-tight cover, and burying it in the ground. Thus secured from air, moisture, and heat, it would be likely to keep through the winter. One of my pupils, Mr M Pierce, has already

laid it thus down, and will report the result to me. This plan, if successful, might be extended to other pharmaceutical herbs, for I have always had the idea that green herbs are more powerful than dried ones. Indeed, the late Mr Donovan, of this city, used to maintain that, to make tincture of digitalis properly, the alcohol should be brought to where the foxglove was growing, and the live plant plunged into it—*British Medical Journal*

PUERPERAL AFFECTIONS OF MOTHER AND CHILD—The transmission of puerperal affections from mother to child through the milk seems to be shown in a striking manner in this paper. Dr Gaulard first discusses a case where a puerperal affection is the result of exposure to erysipelas, and secondly a case where puerperal lymphangitis gives rise to erysipelas. The first case is of a woman confined by the doctor while attending a number of cases of facial erysipelas. Eight days after her confinement she is seized with symptoms indicative of puerperal uterine lymphangitis, which results in an abscess of the broad ligament, which discharges itself through the rectum. The second case was taken a few days after confinement with symptoms of puerperal lymphangitis, but continued to nurse her child, which appeared healthy with the exception of a redness of the eyelids, for which slightly astringent lotions were used to prevent a possible invasion of ophthalmia. The umbilicus did not cicatrize, and very shortly an erysipelatous redness invaded the pubic region, scrotum, thighs, legs, feet, buttocks, and lumbar region, not at any time passing beyond the umbilicus. The child at the same time suffered from fever, insomnia and diarrhoea. The scrotum, which was affected by some effusion into the tunica vaginalis, became darker, and finally sphacelated—the slough separated, leaving a bare wound, which took on a healthy appearance. The child took the breast with avidity, but soon vomited all the milk taken in, the diarrhoea became very frequent, and the stools of a very unhealthy nature, so that it was decided to take the child from the mother and give her to another nurse, when all of these symptoms disappeared rapidly. The mother was allowed to give her breast to the nurse's child, an infant of four or five months, vigorous, healthy. It soon took on this marked redness in different parts of the body, of a fugitive nature, appearing and disappearing suddenly in one or the other region, without the general health being apparently affected. The mother's milk examined carefully presented nothing abnormal, and the child, after entire recovery, was returned to its mother's breast, who nourished it satisfactorily.—GALLARD *Bulletin Medical du Nord Mars 1883*

IMPERFORATE URETHRA—Male child aged thirty-six hours, position of meatus well marked, sexual organs well formed. A stylet failed to find the canal, puncture of the bladder at the pubes caused the discharge of about two ounces of urine. It was found necessary to make an exploratory incision on the inferior surface of the penis to search for the canal, which was supposed to be situated near the base of the penis.—M FOUFFRE, *Bulletin Medical du Nord, Bulletin M*

THE
Journal of the American Medical Association.

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, AUGUST 11, 1883

LOST MEMBERSHIP

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

What has been the course of the Association in the case of members who have failed to keep dues paid up? Does payment for one year restore them to active membership, or must all arrears be paid? Will subscription to THE JOURNAL secure the privileges of membership at the next meeting to a member now in arrears? Respectfully,

The foregoing letter of inquiry was received a day or two since, and as the questions it contains have been asked many times during the past year, we think it may be profitable to give them a public answer. The course of the officers of the Association in relation to members not paying their annual dues, is clearly defined by the following provisions of the constitution and by-laws: "Any permanent member who shall fail to pay his annual dues for *three successive years*, unless absent from the country, shall be dropped from the roll of permanent members, after having been notified by the Secretary of the forfeiture of his membership." Any member in arrears for a period of not more than *three years*, can retain his membership, by paying to the Treasurer the *whole amount* due. When one has been a member and has allowed his dues to remain unpaid more than three consecutive years, and has received notice from the Secretary, that his membership in the Association is *forfeited*, there is no provision in either constitution or by-laws for his reinstatement by paying any amount of previously unpaid dues.

On the contrary, having forfeited his membership

and received official notice of the fact from the Secretary, he is in the same position as though he had never been a member. The only way for him to regain membership, is, to obtain from his State or local Society an election as delegate, attend the annual meeting of the Association and register as a new member. Simply subscribing for the journal of the Association does not secure any privileges of membership in the meetings of that organization.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION — The fifty-first annual meeting of this Association was held in accordance with the previously published programme, in Liverpool, from July 31 to August 3, inclusive. The *New York Medical Record* of August 4 contains a very brief abstract of the proceedings, received by cable dispatch. The meeting is represented to have been largely attended, and the work done in the several Sections varied and important. Among the guests in attendance from other countries was Dr. Austin Flint, Sr., President of the American Medical Association, who was received with great cordiality. In a letter from him, dated July 4, he expressed much interest in the current year's work of our own National Association and its culmination at the next annual meeting in Washington. He will soon be home, and, if his efforts are promptly sustained by the officers of Sections and prominent members of the profession throughout the country, the next meeting will show an amount and quality of work which will bear favorable comparison with the work of any of the national medical organizations of Europe.

YELLOW FEVER AND CHOLERA — No evidence has come to hand that either of these diseases have made advances, or appeared in new places since the previous issue of this journal, and there is a strong probability that the latter will not extend beyond its present boundaries this season. Should the remainder of this month and September be accompanied by unusually high temperature, in the South Atlantic and Gulf States, there will be more danger of the occurrence of yellow fever, in spite of the most vigilant quarantine influences.

DISTANT APPOINTMENT — We learn that Dr. Charles Fremont Dight, Assistant to the Chair of Pathology and Practice of Medicine in the University of Michigan, has been elected Professor of Anatomy and Physiology in the Medical College at Beirut, Syria, in Asia. He is expected to enter upon

his work the coming autumn. He is now visiting the principal medical centers of Europe. We wish him long life and much usefulness.

NECROLOGICAL REPORT—Dr. Toner, Chairman of the Standing Committee on Necrology, presented to the recent meeting of the Association a voluminous report. To prevent absorbing too much space with that kind of reading in any one number of *THE JOURNAL*, we have thought it better to give a few of the Biographical Sketches in each number.

CORRESPONDENCE

OPIUM POISONING

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

The treatment of opium poisoning by atropine has been too long and successfully practiced to need the support of any new clinical facts, still there are modifications of the treatment which may merit notice, inasmuch as it does not always happen in emergencies of this class, which the physician is called upon to meet, that he finds a salt of atropia accessible. In such cases he is not without resources if his pocket medicine case is ordinarily well equipped.

A few days ago a two days-old baby was given one-fourth grain of morphine by mistake. I saw it nine hours later, when at first sight, it seemed to be dead, as the friends believed it to be. Deeply cyanotic, it showed no sign of respiration, and the pulse at the wrist was absent, as indeed it remained, except at short intervals, for many hours.

Having no atropine, I immediately injected subcutaneously five minims of tr. belladonna, followed by an equal amount a few minutes later. By my direction an infusion of coffee was prepared, containing two tablespoonfuls to the cup, which was given hypodermically, a syringe full every ten or fifteen minutes. Within half an hour the worst of the cyanosis had disappeared. A pulse came temporarily to the wrist still earlier, respiration came with gasps, although wide apart. The contracted pupil dilated to more than its normal size, remaining so for three hours, when it began to contract again. The belladonna was then used as before, with a drop of digitalis, as the pulse was again absent from the wrist. As before, both pupil and pulse responded, and all symptoms improved, but an hour later the injection was repeated. Coffee was given subcutaneously throughout the day, artificial respiration was kept up when cyanosis returned, as it did many times, and frequent chafing of the extremities.

By midnight it was quite sure that the child would recover, but consciousness did not return until noon the next day, forty hours after the morphine was given.

I have questioned whether in this case the tincture of belladonna did not serve a better purpose than the

atropine would have done, adding to its antidotal effect that of a stimulant to the heart, which seemed needed quite as much as anything else. Undoubtedly not a little of the final and unexpected result was to be attributed to the other means employed, but they are to be regarded only as important auxiliaries, the most striking results having been attained before they were employed. J. R. BARNETT

Neenah, Wis., Aug. 9, 1883.

CINCINNATI LETTER

[FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION]

It has been the intention of your correspondent to have written ere this, and now fully agrees with Perseus, when he wrote

"Unhappy he who does his work adjourn,
And to to-morrow would the search delay,
His lazy to-morrow will be like to day."

From day to day has this pastime been adjourned only to find it much more easy to do so on the morrow. True, there has been little to write about. We are having a remarkably quiet summer and very little sickness. A cynic at my elbow claims that it is on account of so many of the profession being out of town, it remains to be seen whether that theory is any ways good when our new Board of Health is under full headway. Our Democratic council mortgaged itself by selecting a Board, composed of five saloon-keepers and an advertising, so-called, doctor—all solid Democrats,—and they have likewise shed a halo around their august body by selecting an old-time politician, a chronic place-seeker, who at one time was in the lumber business, as the Health Officer. I should say that, for appearance sake, they did offer the position to that valuable statistician, physician, and gentleman, Dr. Thomas Minor, knowing full well that he would decline. Dr. Minor had the office once, a few years since, much to his regret, as his private business suffered considerably, though he won golden laurels in the estimation of the public for the thorough manner in which he performed the duties of the office. His annual reports were models, and are frequently quoted to day. The present Board is illegal. The Superior Court was authorized by the Legislature to appoint a Board, but through some delicate question in their (the lawyers') code, they declined. We are anxiously awaiting the meeting of the Legislature, when the guillotine will fall and the Board will be gracefully cremated. In the meantime we stand with bated breath and scan the mortality reports. So far there has been no marked increase over this time last year.

New York, it is noted, is to have a crematory furnace. Not to be behind our Eastern brothers, Cincinnati, too, is taking the initiatory steps towards having one. Cremation is growing in favor fast here, partly on the score of economy, but principally on that of health. Like all reforms, it has its strong advocates and strong adversaries, the latter are in the minority, however, and no doubt before many years the ceremony will be thought nothing more of than the ordinary funeral of to day, with its long array of carriages, flowers, and costly

casket There was the reverse of that, however, in the funeral of Dr Jno A Warder, who died at his suburban home a few weeks since of paralysis He was a member of the Society of Friends, and had always believed the practice of that body in its simplicity in all things should be lived up to, and so directed for his own funeral A coffin the plainest of the plain, a ceremony after the form of his religious society, private in nature, the family only being present, a funeral cortege consisting of a wagon and one carriage, the rest of the family coming to the city by train, and meeting the remains at the cemetery, where the burial was privately held It caused some comment by some of the members of the Forestry Association, and of course they had to rush to the daily press, as they were foiled in the effort to palm off a lot of set speeches, that would be asked to go for orations If a few more men of the ability and standing of Dr Warder would follow his example, and their families show the same good sense as his did, all this "pomp and circumstance" of the last rites of the dead, which in the main is show, would be materially done away with, as it is hoped cremation will assist in

The new JOURNAL, as the organ of the American Medical Association, is well received here It starts out well, and hopes are entertained that when the wheels are all well oiled smooth running will be enjoyed There is certainly one advantage, you can have it bound in any form and colored binding you wish, by that means giving some "life" to your library, and not be compelled, as heretofore, to accept the transactions in black, making your shelves look like the inside of a mortuary, that mournful color predominating to such an extent

We were highly gratified and edified to have the American Surgical Association meet here some few weeks since Much good work was done, and we felt highly complimented to think we should have such a distinguished body among us We have had nothing of the kind since 1867, when the American Medical Association met here There was so much hilarity on that occasion—"Old Crow," "Amon-tillado," "Vino de Pasto," to say nothing of "Pom-mery Sec"—(which caused a good many hicks)—flowing like water, that there was no opportunity for any person to read a paper There were several commenced, but soon a motion was made to adjourn, as the Association had an invitation to visit a famous wine cellar—a steamboat ride—a reception, or something else of a like nature As that motion was always in order, the reader would have to stop and hear it carried, while there was nothing for him to do, but to look amiable over the disappointment in not having the opportunity to give the members the results of six months work in preparing his paper, and hand it over to the Publication Committee, to appear in somber hued transactions without discussion Never since that date, have there been enough votes in the Executive Committee to have that Convention come among us again There was more hospitality than meeting, but that was on account of our being so near Kentucky, and while we are proud of our hospitable name, we would like to show some of the mem-

bers, who have found since then what we can do, and those who met with us before, how we are able to extend a welcome now We will guarantee a royal time The ladies are prettier, the houses finer, the suburbs more beautiful, the attractions in the city and the doctors more numerous—to make no mention of what can be done in a musical line, or what can be shown in the way of hospitals and medical schools If we were complimented in having the Surgical Society here, you may rest assured, we were chagrined at the silent manner in which they were treated by that "Great American Medical Compiler," published once a week here—not one word was made mention of their sessions Various theories were advanced, but nothing definite was known until "The Clinical Brief and Sanitary News," a monthly for July, comes with an editorial explanation The editor takes the "two leading editorials from the *Lancet and Clinic*, of June 9," one of which is on how "catgut ligatures are falling in the estimation of surgeons," occupying four lines The other is a "correction," in which three lines of their valuable space is occupied—commenting on the above The editor of the "*Brief*," says—"The importance of the above editorials, added to the fact that the editorial space in the *C L* and *C*, is limited, we trust will be accepted by the distinguished surgeons from all parts of the United States, who have been in convention assembled in this city for a number of days, and have just adjourned, as ample apology for the non-appearance of any notice of their proceedings There is also this apology Had the Convention held its meetings in the hall over the office of the *Cincinnati Lancet and Clinic*, and not in College Hall, reports might have been prepared, and space for their publication found, but as it was, the Convention was too far away The next meeting of the surgeons in this city should be held in Brother Culbertson's hall We desire to benefit Brother Culbertson, and admonish the surgeons"

Some of our experts with the microscope anticipate much pleasure and profit in visiting your friendly city to attend the American Society of Microscopists One member expects to take some beautifully prepared specimens of the present rage, "the bacilli"

The different medical schools here have out their new announcements—each trying to outdo the others, at least it has that appearance to one on the outside The Miamis have at last awakened to the fact that it might be to the advantage of their school to have some young life in the Faculty, and consequently have recognized the ability of some of the graduates who have been in practice a few years, by giving them subordinate positions, with big promises—it remains to be seen whether or no they make them good There is a general impression that the transfusion of "new blood" has been performed so late that it is hardly possible to aid in the desired resuscitation They met with an irreparable loss when Prof William H Mussey, their National man, was taken from them by death, now nearly a year ago The restrictions of the Association of Colleges were more than they wanted to stand, so they kicked over the traces, dashboard and all, and are now out entirely, eating husks and pray-

ing for richer pasturage The Ohios have the lead, as they have had for many years There is lots of push and energy in the executive officers and Faculty, and they spare no expense to matriculate the student, and more than give him his money's worth in the way of clinical advantages The dean complimented the new college, or rather the new Faculty of the old, Cincinnati College of Medicine and Surgery not long since, by expressing fears that they (the Ohios) would find them (the Cincinnati) "a thorn in their sides," or words to that effect, as "they now had a new, hard-working, harmonious Faculty, who would make themselves heard from" The last session—which was the 48th since the college was organized—the first under the new Faculty, certainly looks as though they would be a splinter of some magnitude in the pectoral muscles of the other schools There is one paragraph in their announcement which reads

"Believing that without purity of character no one should receive a passport to the sick-room, the Faculty will refuse to recommend any candidate for graduation whose moral character is under a cloud, and the Trustees will publicly revoke the diploma of any graduate of this institution who may be convicted of using his profession for criminal purposes"

This certainly speaks well for the new Faculty, and is worthy of commendation They took charge of an institution that was in the "slough of despair," and by their lives and acts are regenerating it with a rapidity that is phenomenal

Drs Dawson and Whittaker, who have both suffered the severe pangs of grief in losing their wives recently, are, with many others of the profession, out of the city But this must close, or there will be nothing left for my next

PROTONIDE

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

The Chicago Medical Society held a regular meeting July 16, at which time Dr H D Valin read a paper of much scientific interest, on "Mechanical Equivalent of Animal Heat," and forming part of a manual of biology which he is writing It gave the normal temperatures of various species of cold and warm-blooded animals, of certain plants which possess a temperature of their own, of hibernating animals, and referred sleep to certain changes of temperature The relation of heat to growth was considered one of correlation, though not one of causation, as Carpenter had suggested The slight effect of heat on proto-organisms, and its powerful absorption by mammals, was referred to the elementary composition of each, etc, Dr Valin's theory being that heat absorption increased as the atomic weight of the elements exposed to the heat, and that the higher animals contained more of the heavier salts He also believed that radiant heat became animal motion in the organism, though the larger part of animal motion resulted from oxidation, or combustion of food The mechanical equivalent of heat, as calculated by Dr J R Mayer, and ascertained

by Joule, was stated, but that was no longer the unit in use The unit now taken as the standard was 425 kilogrammeters, which is equivalent to a kilogram of water heated one degree C, or raised 425 meters high This, in English figures, was a pound of water raised one degree C The heat units of various substances in combustion were then stated, and the writer claimed an inverse ratio between these numbers and the atomic weight of the substances The experiments of Hirn on human power of work were given, by which it was shown that man at work consumes five times as much oxygen as during rest, that it requires the combustion of 9 ounces of carbon in the human body to maintain work and life for 24 hours, and that a unit of heat is produced by man in 15 seconds, while a unit of heat in man required the combustion of 11 grains of coal, in an engine it required $9\frac{1}{2}$, and in the open air the same quantity of heat resulted from the combustion of $2\frac{1}{2}$ grains of charcoal The views peculiar to Dr Valin were that the adipose tissue was the coal-bin of the human engine, and should not be allowed to accumulate unduly, but be reduced by active work in order to maintain health, that vitality was proportioned to the height of the temperature in any organism, that the heat of certain fevers often appeared as mechanical work in the form of violent delirium, and then was no longer appreciable as heat, that the endurance of cold was a mechanical work in the body which generated an equivalent of heat, and that active bodily work abstracted heat from the body, and quieted the mind in mania But as the machinery of an engine becomes heated by friction and the furnace by contact, so human temperature rises a degree during work, and that was a measure of the work done A rise of temperature in the brain most likely would give an index of the mechanical work of thought, but this was more easily measured by the plethysmograph, which records the increase of the circulation in the brain during thought

Dr W L Anford read "notes" of a case of bi-lateral dislocation forward of the fourth cervical vertebra, that had fallen under his care The accident occurred in the month of March, 1883, to a little girl 8 years of age The extent of the dislocation was $\frac{2}{3}$ of an inch, and no fracture occurred, nor was there any injury to the cord Drs E Andrews and J G Kiernan had seen the case, and verified the diagnosis During the past six months the child had made almost a perfect recovery The treatment consisted in the "let alone" method

At no time were there marked paralytic symptoms, but the rotary movements of the head were somewhat interfered with, and the head was thrown forward and had assumed a more fixed position

Dr C T Fenn reported a case of "Acute Hepatic Abscess," with *Mistaken Diagnosis, Free Opening, Death, Autopsy*, occurring in a boy 14 years of age It is related that two years ago he received a kick of a horse over his right side, his forearm intervened, and the injury caused him no serious trouble at the time, although he fainted, and ever since he had been subject to pains in the side He had been an ap-

prentice in a blacksmith shop, and on June 19, 1883, quit work, complaining of headache and pain in his right side, and suffering from "cold." On the second day he had a feverish pulse, hot skin, bad odor to his breath, coated tongue, pain in his head, neck and limbs, and especially under the right breast. Gave tr opii deodor, kali chlaursaures in glycerine, and aqua distil, and at night applied emp cantharis 4x5 to the right side across and above the short ribs. On the third day the fetor was corrected, the pain in the side gone, but thirst and headache, and the tongue remained the same, tympanitis, with rapid pulse, high temperature, and a tendency to cough, which would cause pain in his side, were present. On the fourth day he uttered a slight cough with every breath. There was decided flatness over (as Dr F thought) the lower lobe of the right lung, extending from the nipple downward. Poultices were applied from this time continually. Tympanitis and perceptible bulging of the right side were noticed. Constant rest on his back caused extreme discomfort, with perceptible shortening of the breath. On the fifth, sixth, and seventh days the temperature of the body was high, the pulse over 100 during the day, with an increase at night. No tendency to any movement of the bowels. The urine is somewhat darker than normal, but skin and conjunctiva unaffected. Patient had to sit up to obtain rest from the pain of lying so long on his back. In this position the heart

was noticed beating between the second and third

Dullness on the right side extended to one and

if inches above the nipple. The cough is still

somewhat troublesome, but by using salicylate of soda

it seemingly now is beginning to subside. There is a

dark, moist coat upon the tongue, has marked thirst,

tympanitis, with no movement of the bowels. Large

enemæ being introduced daily, were retained. He

loathed beef tea, but found satisfaction in tea,

coffee and lemonade. On the eighth, ninth, tenth

and eleventh days the treatment consisted of ano-

dynes, nutriment and poultices. On one of those

days he evacuated the bowels copiously, the contents

being dark, thin and offensive. The tongue cleaned,

and remained so. On the twelfth day the patient

appeared much improved. The lateral fullness was

reduced. He slept and ate with evident benefit. We

discontinued the poultices, and he sat for most of the

time in his chair by day. On the fourteenth day he

grew worse—the dullness which had been lowering in

his side increased to its former stand. He perspired

freely, and it was quite disagreeable, had chills and

exacerbations of fever at night. On the fifteenth

day Dr D T Nelson was invited to see him, for the

purpose of assisting in surgical interference, should

the diagnosis be confirmed, which was "pleurisy,

with effusion." Dr Nelson used the aspirator at a

point about a third of the way from the median line,

in front, to the spine, and between the eighth and

ninth ribs. Pus was directly perceived, and a free

opening was made, followed by a copious, sluggish

stream of offensive matter. A drainage tube was in-

serted, and the opening was dressed with cotton,

soaked in carbolic glycerine. Before this was done,

however, a finger was introduced directly into the

wound, and there were discovered smooth, soft walls, apparently held together by strong trabeculae. From position of the opening it was concluded the lung was broken down at the site of the large abscess. The prognosis was looked upon as almost hopeless, considering the rapid development. The amount of fluid which escaped at the time of the operation and during the night was at least a pint. On the sixteenth day he was greatly relieved. The cavity was washed freely with carbolic water, which was returned almost clean. Slept well the two nights following. Eighteenth day, the external wound was clean and dry, the carbolic water could be injected five or six inches and immediately be returned almost clean. Reasoning on the assumption that this had been an abscess of the right lung, I thought it quite strange that the only constitutional symptoms were those of septicæmia. The internal treatment was tonic, sustaining, fever mixtures, expectorant and anodyne. By the twenty-first day, as the chills had recurred, with bad nights, extreme heat, and the attempts at cleansing the interior were unsatisfactory, and thinking what new resort to undertake, the patient was seized with a rigor on the twenty-second day, from which he did not rally, and died.

Autopsy twelve hours after death. Body had been surrounded by ice, was distended, and purple appearance of face, neck, chest and abdomen as if decomposition was quite advanced. Incision from top of sternum to three inches below umbilicus exposed contents of the chest. The lungs were both found to be healthy, and crowded up to occupy but half their normal space. The heart was beneath the second and third ribs. The liver extended across the body on a line above the level of the nipples. The stomach and intestines were inflated with gas and aided in forcing the liver higher up. The opening to the abscess was directly over the thickest portion of the liver, and about one-third of the organ seemed to be involved, the rest appeared healthy. The peritoneum was not inflamed. The spleen was softened. No other observations were made, and it was not easy to see how the abscess had its origin. Could it be traceable to the injury received two years ago, and then acute symptoms of three weeks' standing arise?

Dr W H Curtis asked the author of the paper if diarrhoea had been present any time preceding his sickness? Answered, No.

Dr D R Brower asked if any jaundice was present during the patient's illness. Answered, No, but immediately after death the surface turned yellow.

Dr L H Montgomery inquired of Dr Fenn what the difference in the treatment would have been had the diagnosis of the case proved to be an abscess of the liver? Answered, None, and this was one of the reasons why the case was reported to-night, as well as its comparative rareness.

Dr W L Axford asked if the edges of the liver had grown to the walls of the abdomen? Answered negatively.

Dr H D Valin remarked that one year ago he saw a case of hepatic abscess. Twelve years previously the patient (a man), had malaria. There was no diarrhoea, but decided motion of the heart was

noticed There was no jaundice The inflammation was of nine to eleven days duration, when 8 ozs of pus were evacuated by an opening into the abscess In two weeks the patient recovered

Dr Curtis had met four cases of abscess of the liver, which is not of frequent occurrence in the temperate zone In brief, they are as follows The first was an Indian boy, who was taken sick and the abscess pointed to the ribs A free incision was made, and a knotted lump of lumbricoid worms (large as a man's fist), was first discharged Then offensive pus followed The wound was cleansed thoroughly for several days and the boy recovered In this case the lumbricoides was the cause of the abscess

Second case occurred in a chronic drunkard who had chronic liver trouble The man sickened, and a diagnosis of an abscess of the liver was made A free opening in his side by the knife resulted in the abscess discharging itself Adhesions to the walls of the abdomen were found Recovered

Third case occurred in a women 62 years old She had marked jaundice, and marked symptoms of septicaemia, and in two weeks purpura set in The abscess ruptured into the lung and she expectorated pus freely She rallied and partly convalesced, but chills and fever supervened and her life was despaired of It, however, gave away again into the stomach, and a large quantity of pus was vomited, when she finally recovered At 16 years of age, an incision was made in her right side, from which a number of gall stones were removed, and the cicatrix still exists

Fourth case Railroad president Had been under his care for ten days, when he proposed aspiration, but his friends concluded to take him to New York for further advice This was accordingly done, and there operated upon in the same manner, resulting in recovery

Dr A R Brower presented a heart having the following lesion

The case was one of endo-carditis, with roughening of the mitral valve, and no murmur was present when the patient (a woman), was alive The endocardial trouble began with a puerperal fever of a year previous The valve was perfectly sufficient is the reason why there was no murmur Had it been insufficient a murmur would have been discovered An embolism had formed, but with the stethoscope no possible abnormal condition of the heart could be detected She also had chorea, and great shortness of breath No murmur could be detected after exercise, or after laboring under excitement The patient was anemic and emaciated Thinks it rare to find on record a case of mitral lesion, as this case is, and with the other conditions, and no murmur to be heard

REPORT OF PROCEEDINGS OF THE AMERICAN SOCIETY OF MICROSCOPISTS IN CHICAGO, BEGINNING AUGUST 7, 1883

The first session of the sixth annual meeting of the Society began Tuesday morning, with an address of welcome by Prof Lester Curtis, President of the

Illinois State Microscopical Society, and a response by Prof McCalla, of Fairfield, Iowa, President of the American Society of Microscopists The annual report showed the condition of the Society to be encouraging, and called attention to the important papers which had been prepared for the present meeting The Executive Committee, through Prof D S Kellicott, of Buffalo, N Y, Secretary of the Society, recommended the election to membership of fifty persons These persons, together with about fifty more who were chosen at later sessions, materially increase the strength of the Society

After discussion a motion was passed, which provides that hereafter no one shall be elected a member unless the admission fee of \$3 and the annual tax of \$2 accompany the application

The offer of the Chicago *Times* to publish a complete report of the meeting was accepted

It was decided to amend the by-laws so that hereafter papers accepted by the Society may be published in any reputable journal, provided that credit be given to the Society

In the afternoon session Dr F M Hamlin, of Auburn, N Y, read a paper on

THE MICROSCOPICAL EXAMINATION OF SEMINAL STAINS The ordinary method of examination, essentially that of Koblauck, which consists in soaking the stained cloth or object in water and examining the sediment deposited from the water, has led to such poor results that Dr Hamlin has discovered and recommends the following method A small piece of the suspected cloth about an eighth of an inch square, is placed on a slide moistened with water, and after soaking a short time a cover is applied In the case of cotton, the ends should be frayed, and with colored woolen stuffs the suspected parts should be scraped off with a knife Hairs may be cut off and examined in the same way, but care must be used not to lose the crust which contains the sperms They will be seen in all cases between the meshes of fibres, or clinging to the threads or hairs, and successive examinations of different portions will reveal any if present The superiority of this method to the common one is well shown by comparing the results obtained by treating a known stain in both ways The frequent failure of the ordinary method is probably due to the breaking down of the fragile spermatozoa when the embedding crust is dissolved The specimens may be temporarily preserved by ringing them, and probably by the use of carbolic acid they may be kept for a long time

In the discussion of the paper, Dr Henry Gradle, of Chicago, stated that he had frequently stained spermatozoa in the same way as he stained bacteria When seeking for them in urine he dries a drop on a cover glass and stains with an aniline color By successively adding drops and drying he increases the chance of finding the germs when few in number He has found that they readily take up aniline colors

A well written paper by Prof Sarah Whiting, of Wellesley College, on

COLLEGE MICROSCOPY was next read The next paper was on the means of collecting and preserving micro-organisms

SOCIETY PROCEEDINGS

[AUGUST,

clearly given, and then followed a description of the origin and management of the successful Wellesley College Society.
Next followed a paper by Prof S H Gage, of Cornell University, on
CATALOGUING, TABLEING AND STORING MICROSCOPICAL SPECIMENS

The value of a complete catalogue was emphasized, and the advantages of the card catalogue adopted at Cornell were pointed out. The following formula will indicate what is desirable for convenience and completeness

- Formula for Cataloguing Microscopical Preparations —
- 1 The general name
 - 2 The number and date of the preparation, and the name of the preparator
 - 3 The special name of the preparation, the common and scientific name of the object from which it is derived
 - 4 The special object of the preparation
 - 5 The method of hardening, etc.
 - 6 The special method of preparation for the microscope viz sections, spread etc.
 - 7 The staining agent and the time required for staining
 - 8 The clearing agent and the mounting medium
 - 9 The objectives to use in studying the preparation
 - 10 Remarks including references to good figures and descriptions
- An Actual Catalogue Card Written According to the Formula.—
- 1 Nerve fibers
 - 2 No 31 (Dr. 11) March 21, 1880 S H G, preparator
 - 3 Isolated medullated nerve fibers from the sciatic of the cat (felis domestica)
 - 4 This preparation shows well the axis cylinder and the nodes of Ranvier
 - 5 Dissociated 24 hours in 25 per cent alcohol
 - 6 Teased or dissociated on the slide with needles
 - 7 Stained over night in picrocarmine
 - 8 Cleared with turpentine and carbolio acid mounted in chloroform balsam
 - 9 Use three fourths and higher objectives (x50x)
 - 10 See for figures and descriptions Quain's Anatomy Vol II p 141 and Ranvier Traite d Histologie p 723
- Label Written According to the Formula —
- 1 No 96 1880
 - 2 Nerve fibers
 - 3 Cat
- for Labeling Microscopical Preparations —
- 1 The number and date of the preparation (No 2 of catalogue)
 - 2 The general name (No 1 of catalogue)
 - 3 The name of the object from which the preparation is derived

Tuesday evening, Prof McCalla delivered the annual address. The theme chosen was
THE VERIFICATION OF MICROSCOPIC OBSERVATION

The address consisted in a retrospect of the work of the past, and a statement of the means to be employed to verify the truths of the present and future.

Wednesday morning, Prof T J Burrill, of Champaign, Ill, read a paper on
METHODS OF PREPARING AND MOUNTING BACTERIA

The elements of successful staining were enumerated as follows

- 1 The organisms should be decidedly and conspicuously colored
 - 2 The general mass of imbedding material should be left unstained, or so different in color that the organisms can be distinctly seen
 - 3 There should be no granular or other precipitating material, nor should any portions from the staining material, nor should any portion of the latter remain as a coating on the glass
 - 4 The color should be suitable for the purposes required, and permanent, if the object is to be mounted for the cabinet
 - 5 The process should be as simple as possible and free from manipulative difficulties
- The aniline dyes are most serviceable in staining bacteria, and of these dyes methyl violet in aqueous solution is most frequently used. There are two objections to this stain. It is apt to be fleeting, especially if exposed to the light, and alcohol will dis-

charge the color, hence mounting in balsam is impossible. The first may be partly removed by making a deeper stain, and then removing the excess of color by washing. The second objection is best met by using a solution of the violet in glycerine. One part of the dye to five parts of glycerine produces a successful and permanent stain.

Suppose one wants to examine the organisms in his own or any other person's mouth. He may proceed as follows. Secure a little mucus from the tongue or teeth, taking care to avoid the remnants of the last bread and butter enjoyed. Place the substance on a clean glass slip, and if necessary, mix by stirring. Make a little spatula of wood a quarter of an inch wide, and cut square at the end, with which smear a well-cleaned cover glass, after the manner of spreading blood, by drawing the spatula with the material once or twice, side by side, over the desired surface, holding the instrument at 30 or 40 degrees from the horizontal. Dry in the air or with moderate heat, then pass the glass through a flame somewhat quickly three or four times, holding the smeared surface up, and from a bottle, through the cork of which passes a glass rod, put on a drop of the glycerine violet, after one minute or less wash with water by means of a stream from a wash-bottle, and mount while wet for examination, the upper surface being wiped dry. If for permanent preservation, see that the cover glass and stained material are thoroughly dry, then mount directly in pure balsam, or, better in some respects and not so good in others, in Farrant's solution of gum and glycerine. All this can be done without putting the object out of hand, and in a very short time, and our specimen remain fit for the cabinet, or for re-examinations, months and probably years afterward. The use of an alcoholic solution of blue or red aniline would, with the same or similar treatment, be a complete failure, the whole surface, glass and all, remaining smeared with the dye in spite of water washing, and the whole color disappearing with the use of alcohol. With other organisms, as, for instance, the micrococcus of pear blight, the aqueous solutions of red or violet aniline are partially successful, while methylene blue entirely fails, but the strong glycerine solutions of the two former give far better results.

The next hour was to have been occupied by Dr Detmers, of Champaign, Ill, with a paper on the subject of
PATHOGENIC BACTERIA,

but as the paper was not ready he gave a talk on the same subject, which led to a sharp discussion. Dr Detmers considered the ordinary classification of bacteria, viz that of Cohn, as imperfect, and held that the genus micrococcus should disappear. The forms referred to this genus he believed to be one stage in the development of bacilli or other kinds of bacteria. In other words, a micrococcus has the same relation to a bacterium as a catapillar has to a butterfly.

He also held that a bacterium may be innocent under certain conditions and harmful under others. He has often found bacteria in his own blood when he was perfectly well, while under other conditions,

when the bacteria were in a different stage of development, they would probably do harm

It was not to be expected that such views, from one holding so important a position in the government service, presented without evidence, would be accepted without discussion. Dr Henry Gradle, of Chicago, called attention to the labors and conclusions of Zopf. While acknowledging the reliability of Zopf's experiments, Dr Gradle considered that the generalization made, namely, that one germ can be changed to another, was unwarranted. The more probable conclusion seemed to be that germs are genetically related as man and the dog are related to the bird in the embryo state.

The next paper was by Dr G. E. Fell, of Buffalo, N. Y., on

THE CLINICAL ADVANTAGES OF OZONE AND ITS EFFECTS ON BACTERIA

The author described the practice of Dr Bartlett, of Buffalo, who has for some time treated zymotic diseases with ozone. The success of this mode of treatment suggested to Dr Fell a series of experiments to determine the effects of ozone in preventing the growth or destroying the life of germs. The experiments evidently involved considerable labor, but it is doubtful whether the results are of great value on account of ignorance of the labors of others, and inattention to important details. The results were varying, in some cases ozone decreased or destroyed bacterial life, while in others no effect was produced.

The committee on the important subject of NOMENCLATURE AND SIZES OF OCULARS presented a report in which they recommended the adoption of the following resolutions

Resolved, That this society recommends that oculars be named by their equivalent focal distances on the basis of one inch focus corresponding to ten diameters of amplification at ten inches distance, and that this nomenclature be employed in the proceedings of this society

Resolved, That this society recommends the adoption of the diameter 1.25 inch outside measure as a standard size of ocular tubes, with a preference for 1.35 where larger, and .92 where smaller sizes are required, and recommend .675 outside measure for ocular cap tubes, and 1.50 inch measure for substage tubes

This report was discussed and finally the subject recommitted. At a later session it was brought up, but again referred to the committee to be decided next year.

Wednesday afternoon Dr G. E. Blackham presented the following resolution, which was adopted

"In view of the fact that the Royal Microscopical Society of London has seen fit to honor this Society by making its President a fellow of the Royal Society, it seems fitting that there should be some formal recognition on our part of the honor thus conferred by the oldest and most distinguished national microscopical society upon the youngest. I therefore move, first, that the American Society of Microscopists recognize and reciprocate the kindly fraternal feeling shown by the Royal Microscopical Society in making our presiding officer an ex-officio fellow, sec-

ond, that, as a further evidence of appreciation and reciprocal feeling, we hereby elect the President of the Royal Microscopical Society and his successors ex-officio members of the American Microscopical Society."

Prof W. A. Rogers, of Harvard University, then presented a paper entitled

A CRITICAL STUDY OF THE ACTION OF A DIAMOND IN RULING LINES ON GLASS

The writer first referred to his theory concerning the method which Nobert may have employed in the production of his test plates. The summary of this theory may be given in his own words

When a diamond is ground to a knife edge, this edge is still made up of separate crystals, though we may not be able to see them, and a perfect line is obtained only when the ruling is done by a single crystal. When a good knife edge has been obtained the preparation for ruling consists in finding a good crystal. Occasionally excellent ruling crystals are obtained by splitting a diamond in the direction of one or more of the twenty-four cleavage planes which are found in a perfectly-formed crystal. A ruling point formed in this way is, however, very easily broken, and soon wears out. Experience has shown that the best results are obtained by choosing a crystal having one glazed surface and splitting off the opposite face. By grinding this split face a knife edge is formed against the natural face of the diamond, which will remain in good condition for a long time. When a ruling crystal has been found which will produce moderately heavy lines of the finest quality, it is at first generally too sharp for ruling lines finer than 20,000 or 30,000 to the inch, even with the lightest possible pressure of the surface of the glass. But gradually the edges of this cutting crystal wear away by use until at last this particular crystal takes the form of a true knife edge which is parallel with the line of motion of the ruling slide. In other words, when a diamond has been so adjusted as to yield lines of the best character, its ruling qualities improve with use. If Nobert had any so-called "secret," I believe this to have been its substance.

A microscopical study of ruled lines shows that there are different ways in which they may be produced. Ordinarily an opaque groove, which stops the light, is cut by the diamond. Sometimes, however, the particles of glass removed by the diamond are piled up in a window besides the real line. These particles may appear in four characteristic forms: (a) They appear as chips scattered over the surface of the glass. (b) They appear as particles so minute that when laid upon a window, and forming an apparent line, they can not be separated under the microscope. (c) They take the form of filaments when the glass is sufficiently tough for them to be maintained unbroken. (d) They take a circular form.

The lines best suited to the work of the microscopist are evidently not of this character. To produce permanently good lines three conditions must be fulfilled: 1. The glass must be tough. 2. The crystal must produce lines which will retain their form.

should be remembered that a ruled plate must be cleaned by rubbing only in the direction of the lines, and never across them. 3 The line must not break down upon the lapse of time.

Passing on to the claims of Mr Tasoldt, of ruling lines one million to the inch, Prof Rogers made a sharp distinction between visibility and resolution. In regard to the limit of resolution it must be admitted that no advance has been made since the resolution of Nobert's nineteenth band. It may be possible to go a little beyond 113,000 to the inch, but it is safe to say that this is about the limit. The visibility of single ruled lines is a distinct problem, and it is proposed to substitute this as a test in place of the resolution of lines in close combination. In stead of bands of lines of the Nobert pattern, a series of bands is suggested, each having the same interlinear unit, but with the lines of each successive band finer than those of the preceding band. One micron is a convenient interlinear unit. A heavy line should precede the band in order to facilitate finding it.

The paper was closed by showing the intimate relations between the limits of naked-eye and microscopic visibility. Lines whose width did not exceed one-sixth of a micron have been seen by the naked eye which could not be discovered by the microscope.

The next paper was by Prof A H Chester, on

DRY MOUNTING

On account of the great difficulty in successfully mounting dry objects, namely, the deposit on the under side of the cover-glass, Prof Chester, following out a suggestion of Prof Rogers, has worked out the following method, which may be given in the words of the writer:

"The object is fastened to the glass slip in the usual way, and a cell built up around it by means of one or more tin rings. When the cell is high enough so that the cover-glass laid on top will not touch the object, a tin ring having a little larger hole is cemented on, thus forming a ledge on which the cover-glass may rest, with room above it for the wire ring, which holds it in so firmly that there is no danger of its being jarred out. The tin cells are made as described at the Elmira meeting last year, by punching rings from thick tin foil and afterward stringing the rough rings on a mandril that just fits the hole, clamping them fast and turning them down until they are just the right size outside. After considerable experiment I have adopted the following sizes in the various parts of this work, using a five-eighths inch cover-glass. For the cell-rings a No 29 punch is used, having a diameter of 0.543 of an inch. For the top rings the punch is No 22, with a diameter of 0.505 of an inch. This cuts a little larger than its inner diameter, and will just admit the five-eighths cover-glass. For the outer rim of both a No 11 punch may be used, 0.751 of an inch in diameter, and making the rings large enough to allow for turning down. The tin foil for the upper ring should have a thickness of about 0.032 of an inch. No 21 of the Birmingham wire gauge. Made with a gun-wad punch, the rings will have a bevel on the inside, and being set with

the smaller hole uppermost the bevel will help to hold the brass ring in place. The wire rings are made from No 24 spring brass wire, 0.022 of an inch in diameter. These rings are easily made by winding a wire on a spindle about 0.4 of an inch in diameter, forming a spiral spring, every coil of which when cut open makes a ring. The exact size of this spindle is not important, for the size of the spiral can be varied by putting more or less strain on the wire, or by the rate at which the spindle is revolved. The rings should be a trifle larger than the opening in cells, so that small pieces must be cut out to make them fit exactly when sprung into place. They can then be taken out and the cover-glass removed with the greatest ease. The cover-glasses should not be more than one-hundredth of an inch thick, and several thicknesses of tin foil may conveniently be used for the lower cells. The thinnest I use is 0.005 of an inch. For objects requiring less than that I simply turn a cement ring on the glass, and then put the top cell on that.

After the reading of this paper there was an exposition of the methods of work by many of the members of the society.

Wednesday evening Prof W H Walmsey, of Philadelphia, read a paper on "Photomicrography," and exhibited his apparatus.

Prof D S Kellicott, of Buffalo, followed with a valuable paper on "Parasites in the Gills of a Crayfish."

At the close of the session many of the members accepted an invitation from Prof Hough, of the Chicago Observatory, to visit and examine the telescope.

In the next number of THE JOURNAL there will be given a report of the remaining sessions of the society.

REPORT OF THE SECRETARY OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

Section on Obstetrics and Diseases of Women met in Frohsm's Hall. Dr J K Bartlett, of Wisconsin, Chairman. In absence of the Secretary, Dr G A Moses, of St Louis, Missouri, Dr J T Jelks, of Hot Springs, Arkansas, was appointed Secretary. First paper, by Dr W H Byford, of Chicago, on "Intra-Pelvic Inflammations of a Chronic Form," was read by the Secretary.

All parties making speeches were requested to furnish the Secretary with copies of their remarks.

Next paper was on "Post-Partum Polypoid Tumors," by Dr H G Landis, of Ohio.

The paper was ably discussed by Drs Wathier, of Kentucky, and H O Marcy, of Boston.

Next paper was read by Dr H O Marcy, on "Restoration of the Perineum by a New Method," the doctor exhibiting the pins with which the new operation is performed. The paper was ably discussed by Drs Brown, of Detroit, Michigan, E W Jenks, of Chicago, H O Marcy, of Massachusetts, Haws, of Detroit, Wathier, of Kentucky, Sutton, of Pittsburg, Reamy, of Ohio, Potter, of New York, and Watson, of Wisconsin.

The next paper presented to the Section was by Dr Sutton, of Pennsylvania, on "Enterotomy as a Com-

plication in Ovariectomy or Oophorectomy" Dr Murdock, of Pennsylvania, discussed the paper and confirmed the statements of Dr Sutton

Dr Jenks, of Chicago, moved the appointment of a committee on publication of the papers, said committee to be composed of five, of whom the Chairman and Secretary shall constitute two After which the Section adjourned

SECOND DAY

Dr Bartlett, of Wisconsin, Chairman, and J T Jelks, M D, of Arkansas, Secretary

Section on Gynæcology and Obstetrics Session in Frohsim Hall Second day, June 6

Dr E C Dudley asked permission to transfer reading of his paper from this P M to first thing to-morrow afternoon Granted

Dr R Beverly Cole, of California, being absent, and his paper on "Subinvolution, Its Causes and Treatment," not being on hand, the next paper was called, "Post-Partum Atrophy of Uterus," by J Tabor Johnson, of District of Columbia Dr Johnson being absent, Dr John Morris, of Maryland, read a paper on "What Means can be Judiciously Used to Shorten the Term and Lessen the Pains of Labor?" Paper was ably discussed by Dr McClurg, of Pennsylvania, A C Grant, of Texas, Dr Abbey F Rooney, of Illinois, Dr Reamy, of Ohio, Dr Smart, of Michigan, Dr Gordon, of Minnesota, Dr Martin, of Massachusetts, Dr Montgomery, of Pennsylvania, Landis, of Ohio, Humiston, Lynn, Massachusetts, Robinson, of Pennsylvania, Dr Reeves, of Ohio, Horlic, of Ohio, Wathier, of Kentucky, and closed by Dr Morris himself

Paper by Dr E C Dudley, of Illinois, on "The Immediate Application of Sutures in Puerperal Laceration of Cervix and Perineum," was read by the author to an attentive audience, and was discussed by Dr Harvey, Dr Wathier, of Kentucky, Dr E W Jenks, of Chicago, Dr Morris, of Maryland, Dr Maughs, of Missouri, Ulrich, of Pennsylvania, Carstens, of Detroit, being closed by Dr Dudley himself

The next paper was read by Dr W H Taylor, of Cincinnati, on "Report of a Case of Laparo-Electrotomy" Dr Reamy asked that discussion of Dr Taylor's paper be set for first thing for to-morrow afternoon, and the request was granted by the chairman Section then adjourned

Committee to examine and report upon papers in addition to President and Secretary E W Jenks, Illinois, H O Marcy, Massachusetts, R S Sutton, Pennsylvania

THIRD DAY

Third day's proceedings of Gynæcological and Obstetrical Section First thing in order was the discussion of Dr Taylor's paper on Laparo-Electrotomy, and was earnestly discussed by Dr Dunlap, of Ohio, Dr Dandridge, of Ohio, Dr Reamy, of Ohio, Dr Wathier, of Kentucky, Reed, of Ohio, Dr Bartlett, of Wisconsin, and closed by Dr W H Taylor, the author of paper

Dr Battey being absent, and his paper on "Battey's Operation, Death from Ether," not being on

hand, the President called the next Dr P Zenger, of Ohio, read a paper on "Value of Gynæcological Treatment in Hysteria and Allied Affections" Discussed by Dr Reamey, of Ohio, Dr Gordon, of Maine, Dr Corlett, of Missouri, Dr Maughs, of Missouri, Dr Crawford, of Illinois, Dr Reed, of Ohio The President then appointed the following committees, viz The committee on selection of subject for the Prize Essay Drs L F Warner, of Massachusetts, H D Didima, of New York, and W H Byford, of Illinois

Committee of Award J C Reeve, of Ohio, T A Reamy, of Ohio, G M B Maughs, Missouri

Dr G M B Maughs, of Missouri, then read a most remarkable paper on "The Midwifery, and Gynæcology of the Ancients"

Dr Martin, of Boston, then read a paper on an Appliance Adapted to Synecological and Obstetrical emergencies

Session closed *sine die*

REVIEWS

LESSONS IN QUALITATIVE CHEMICAL ANALYSIS By F Beilstein, translated and enlarged by Chas O Curtman St Louis Stationery and Book Co, Publishers

This is a small, well printed and well proportioned book of 150 pages It is a translation from the fifth edition of Dr Beilstein's work The author and editor have made it a compact manual, covering rather more ground than the leading title would indicate, for to the lessons in qualitative analysis have been added about thirty pages treating of volumetric analysis The work is intended to be a laboratory guide for students who desire to gain a fair knowledge of the reactions of the common chemicals and of methods of analysis It commences with a chapter on Chemical Manipulations, in which is described the Bunsen burner and its management, the use of the blow-pipe, manipulations of glass tubing and corks, filtration, and other points in regard to which the beginner needs information Then follow forty-five examples for practice in qualitative analysis These consist in making tests for certain substances For instance, in the first the reaction of common salt with heat and various chemicals is described, and also the tests for sodium and chlorine Following these examples, and before taking up the systematic course in qualitative analysis, a few pages are devoted to the examination systematically of substances containing a single base The way to make a qualitative analysis is clearly and at the same time compactly described At this point the use of the spectroscope is explained

A few examples in the analysis of organic substances, such as alcohol, sugar, quinine and morphine, are also given Among the examples in volumetric analysis are quantitative determination of glucose, and the book is certainly one for which no student would

valuable addition if the analysis of some other organic substances had been added. It makes a beginning at urinalysis, and no more. While it gives methods of qualitatively and quantitatively determining sugar and urea in urine, it says nothing about the detection of albumen and some other important substances. To be sure, it does not purport to cover this ground, still the book would have been, by their addition, more valuable for those students (medical and pharmaceutical) for whom the editor has tried to especially adapt it.

REPORT OF THE HEALTH OFFICER OF THE DISTRICT OF COLUMBIA FOR THE YEAR ENDING JUNE 30, 1882

This, the annual report of Dr. Smith Townshend, is a very carefully prepared document. The tables, wood-cuts and maps serve as excellent illustrations of the text. Of course most of the material is of local interest, but the illustrations given of defective drainage in a rapidly growing city like Washington, with the money that is now being spent upon costly private residences, must be of the first importance, and it is evident from his report that Dr. Townshend has fully appreciated this. That great bugbear, malaria, it would seem, cannot be readily treated from a statistical standpoint, as "Malarial fever does not appear as a prominent cause of death in the mortality reports. It is the malarial poison that hastens death in phthisis or consumption, retards convalescence in many other diseases, and, complicating, forms into the incurable what would otherwise be a curable disease." The population of the District of Columbia is set down at 188,653, to meet the medical wants of which there are registered as medical practitioners 426 names.

BOOKS AND PAMPHLETS RECEIVED

Beilstein's Chemical Analysis Translated from Fifth Edition, with Additions. By C. O. Curtman, M.D. St. Louis Stationery and Book Co., Publishers.

Anatomy, Surgery, and Hygiene of Rectum. By J. Eastman, M.D. (Reprint.)

The Prevention of Insanity. By Nathan Allen, M.D. (Reprint.)

Nasal Cough and the Existence of a Sensitive Reflex Area in the Nose. By J. H. Mackenzie, M.D. (Reprint.)

Report of Health Officer of District of Columbia, March and June, 1883.

Archives de Médecine et de Pharmacie Militaires
Bulletin de l'Académie de Médecine

Archives de Médecine Navale

Massage, Its Application, and A New Operating Table. By F. H. Martin, M.D. (Reprint.)

Experimental Researches on the Tension of the Vocal Bands. By F. H. Hooper, M.D. From Physiological Laboratory of Harvard Medical School.

Transactions of the Maine Medical Association for 1882.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, 1882.

Preliminary Report on the Yellow-Fever Epidemic of 1882 in the State of Texas. Marine Hospital Service.

MEDICAL SOCIETY ITEMS

SANITARY CONVENTION AT MUSKEGON, MICHIGAN, UNDER THE AUSPICES OF THE STATE BOARD OF HEALTH.—Arrangements having been made by a local committee of citizens of Muskegon, acting with a committee of the State Board of Health, you are cordially invited to be present at the sessions of a Sanitary Convention, which will be held in Muskegon, Michigan, on Thursday and Friday, August 23 and 24, 1883.

SESSIONS.—There will be sessions the first day at 2 P. M. and 8 P. M., on the second day at 9 A. M., 2 P. M., and 8 P. M. At each session of the Convention there will be addresses or papers on subjects of general interest pertaining to public health, each paper to be followed by a discussion of the subject treated.

OFFICERS OF THE CONVENTION.—The officers chosen are as follows: President, Hon. H. H. Holt, Vice-Presidents, F. A. Nims, Muskegon, K. F. Morse, Whitehall, Hon. John Roost, Holland, Dr. John Reynolds, Grand Haven, Hon. Michael Brown, Big Rapids, F. P. Kenyon, Montague, Rt. Rev. Geo. D. Gillespie, Grand Rapids, A. S. Kedzie, Grand Haven, Henry F. Thomas, M.D., Allegan, G. K. Johnson, M.D., Grand Rapids, E. O. Shaw, Newaygo, W. E. Dockry, M.D., Pentwater, Judge F. J. Russell, Hart, Frank Bracelin, Montague, Secretary, C. P. Donelson, M.D., Muskegon.

ADMISSION.—The admission to all sessions of this Convention will be free, and the public are cordially invited.

OBJECTS OF THE CONVENTION.—The objects of the Convention are the presentation of facts, the comparison of views, and the discussion of methods relating to the prevention of sickness.

ADDRESSES AND SUBJECTS TO BE PRESENTED AND DISCUSSED.—An address by the President of the Convention, Hon. H. H. Holt. Among the subjects which it is expected will be presented and discussed are the following:

The Water Supply, with especial reference to Muskegon, Sewerage and Drainage, and its application to Muskegon, Communicable Diseases,—Scarlet Fever, Diphtheria, and Small-Pox, Ventilation of Residences and Public Buildings, Food, and the Sanitary Regulation of Markets, Instruction in the Public Schools on the effects of Alcohol and Narcotics, Adulterations and Nostrums, Shall there be a General Hospital at Muskegon? The Disposal of Refuse Organic Matter.

The papers are expected to be original contributions, which when read are to be considered the property of the Convention, and to be left with the

Secretary Programs will be issued before the Convention

COMMITTEE FROM THE STATE BOARD OF HEALTH — J H Kellogg, M D, Battle Creek, Henry B Baker, M D, Lansing

LOCAL COMMITTEE — John P Stoddard, M D, Chairman, R S Thompson, Hon H H Holt, Rev M W Fairfield, Hon Nelson DeLong, H H Getty, Rev, J W Miller, Fred A Nims, David McLaughlin, C P Donelson, M D, Prof C L Houseman, Dr L R Marvin, Dr G Chaddock, Rev W T Whitmarsh, Hon L G Mason

Reduced fare on railroads may be obtained by applying to the Secretary of the Convention for certificates For further information address

C P DONELSON, M D, *Secretary*
Muskegon, Michigan

THE third annual meeting of the Lehigh Valley Medical Association will be held on the 15th of this month Among the papers to be read are address by the President, Dr Traill Green, one on "Strangulated Hernia," by Dr A M Cooper, of Point Pleasant, and one on "The Diagnosis and Treatment of Some Forms of Grass Hysteria," by Dr C K Mills, of Philadelphia

At the third annual meeting of the Ophthalmological Society of Great Britain, which was held July 6, Mr Jonathan Hutchinson was elected President

MISCELLANEOUS ITEMS

COLLEGE ITEMS

Dr FRANCIS DELAFIELD has been made full Professor of Principles and Practice of Medicine in the College of Physicians and Surgeons, New York

H N HEINMAN, of New York city, has been made Professor of Principles and Practice of Medicine in the Woman's Medical College of the New York Infirmary

Dr J H McNIIRE, late of Richmond, Ind, has been elected to the chair of Surgical Diseases of Women, and Dr Edw Borck to the chair of Surgery, in the College for Medical Practitioners, St Louis, Mo

MR JONATHAN HUTCHINSON, who has resigned his position in the London Hospital School as senior surgeon, has been made Emeritus Professor of Surgery Dr Tidy has also resigned his position as lecturer on Chemistry

AFTER forty years of service in the chair of chemistry, in Dartmouth Medical College, Prof O T Hubbard, M D, has resigned, and been made Emeritus professor Dr J Bartlett will give instruction in chemistry during the present course of lectures

THE University of Colorado has opened a medical department, their course of study to be four years

The Faculty, with a few exceptions, reside in Denver Unfortunately, a provision in the State charter prevents the medical department from being established in Denver — *Denver Med Times*

THE Grocers' Company, of London, England, in order to aid and stimulate investigation of sanitary science, have offered a purse of £1,000 for the best essay on the following subject "To discover a method by which the vaccine contagium may be cultivated apart from the animal body, in some medium or media not otherwise zymotic, the method to be such that the contagium may by means of it be multiplied to an indefinite extent in successive generations, and that the product after any number of such generations shall (so far as can, within the time, be tested) prove itself of identical potency with standard vaccine lymph" The prize is open for competition by citizens of any nation Persons desirous of ascertaining the conditions in accordance with which the essays must be written, should address Clerk of the Grocers' Company, Grocer's Hall, London, E C

WE learn from the *Indiana Medical Journal*, that the Medical College of Indiana has ceased to be the medical department of Butler University Dr John Chambers has been elected to the chair of Principles and Practice of Medicine made vacant by the death of Dr R N Todd, Dr J W Marsee to the chair of Anatomy and Clinical Surgery, formerly occupied by Dr Chambers, Dr G L Curtis to the chair of Physiology, vacated by the resignation of Dr Wm B Fletcher, Dr James Taylor was made Demonstrator of Anatomy, with Dr Frank Morrison as assistant

THE following gentlemen have been appointed by the Governor the State Board of Health of Missouri E H Gregory, W R Conery, and P D Yost, of St Louis, G M Cox, of Springfield, G F Bartlett, of Poplar Bluffs, H F Hereford, of Kansas City, and S C Hearne, of Hannibal

The Bristol Medico-Chirurgical Journal is the title of journal to be issued July 1st, under the auspices of the Bristol Medico-Chirurgical Society, and to be edited by J Greig Smith, M A, F R S E It will be published half-yearly

THE government of France has urged in the Chamber of Deputies a credit of 50,000 francs, with which to pay the expenses of a scientific commission to investigate the cholera epidemic in Egypt

IT is announced (*Boston Medical and Surgical Journal*) that Dr Calvin Ellis has given up the deanship of Harvard Medical College, and that Dr H P Bowditch has been chosen in his place

Dr L H McMURTRY has retired from the editorship of the *Louisville Medical News*, and has been succeeded by Dr H A Cottell

THE *Chicago Medical Register* for 1883-4 has just been issued It contains the names of 557 regular physicians

NECROLOGICAL

ATWOOD, FRANCIS, M D, died in St Paul, Minn, Aug 5, 1882, aged 36 years Dr Atwood was born near Boston, Mass, and obtained his elementary education at Exeter Academy, after which he entered Harvard University, and graduated Bachelor of Arts in 1869 Then entering the medical department of the same institution he graduated Doctor of Medicine in 1872 After spending a year as interne in the wards of the eye and ear department of the Boston City Hospital he went to Europe, and in Berlin and Vienna acquired such thorough practical knowledge of his specialty as to enable him to at once take the front rank as an oculist He settled in St Paul in November, 1874, and in eight busy years made a brilliant reputation Like so many workers he took no time for rest, and vainly looked to the future for the recreation and enjoyment he should have secured as he went along This broke down his constitution, and the first real sickness of his life carried him off W D HAND, M D

BELL, CYRUS, M D, of Feeding Hills, Mass, died in ——— 1882, was born in Chester, June 14, 1813 He was the son of James B, and early left an orphan, but acquiring a fair education, he studied medicine with one of his brothers, for three of them were physicians When he was sufficiently advanced he attended lectures at Berkshire Medical School, at Pittsfield, where he graduated M D in 1839 After practicing for a time with one of his brothers he settled at Feeding Hills, where for over forty years he was actively engaged in an extensive and responsible practice He married Miss Chamberlain, of Austerlitz, N Y Dr Bell was noted for his devotion to his profession, and for the careful and conscientious manner in which he discharged all his professional obligations He was a generous man, a kind and skillful physician, and a steadfast friend Doctor Bell was not only popular in the county, but was held in high esteem by his medical brethren His standard of professional responsibility and worth was high, and the deserving always received encouragement from him, and the unworthy was as sternly frowned upon He was a member of the County Medical Society, and of the State Medical Society, and in 1860 attended as a delegate the American Medical Association He took an active interest in school matters, and was long a member of the committee

J M T

From data furnished by H O Marcy

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S. MARINE HOSPITAL SERVICE, APRIL 1, 1883, TO JUNE 30, 1883.

BAILHACHE, P H, Surgeon—To examine officers and cadets of the Revenue Marine Service, April 2, May 28, and June 4, 1883 To proceed to New York, Y Y, to make arrangements for the care

of seamen, April 30, 1883 To proceed to Chattanooga, Memphis, St Louis, Cairo, Evansville, Louisville, Cincinnati, Gallipolis, Wheeling and Pittsburgh, as inspector, June 23, 1883

MILLER, T W, Surgeon—Detailed as President of Board of Examiners, May 15, 1883 Detailed as member of Board for the physical examination of cadets of the Revenue Marine Service, May 15, 1883

WYMAN, Walter, Surgeon—Detailed as member of Boards for the physical examination of officers and cadets of the Revenue Marine Service, May 1, 15 and 28, 1883 Detailed as member of Board of Examiners, May 15, 1883

MURRAY, R D, Surgeon—To proceed to Pensacola, Fla, and take charge of Quarantine Service, May 21, 1883

GASSAWAY, J M, Surgeon—Granted leave of absence for ten days, April 21, 1883 Detailed as recorder of Board of Examiners, May 15, 1883

SMITH, Henry, Surgeon—Granted leave of absence for thirty days, on account of sickness, June 14, 1883

FISHER, J C, Passed Ass't Surgeon—Detailed as member of Boards for the physical examination of officers of the Revenue Marine Service, May 1 and June 4, 1883

COOKE, H P, Passed Ass't Surgeon—Granted leave of absence for thirty days, May 15, 1883

O'CONNOR, F J, Ass't Surgeon—Relieved from duty at Detroit, Mich, and assigned to temporary duty at Boston, Mass, May 10, 1883

GUIFERAS, JOHN, Ass't Surgeon—Granted leave of absence for thirty days without pay, April 3, 1883

ARMSTRONG, S T, Ass't Surgeon—To proceed to Memphis, Tenn, for temporary duty, May 21, 1883

BENNETT, P H, Ass't Surgeon—Granted leave of absence for thirty days, on account of sickness, June 26, 1883

AMES, R P M, Ass't Surgeon—Granted leave of absence for fourteen days, April 3, 1883

DEVAN, S C, Ass't Surgeon—Detailed as medical officer Revenue Steamer "Corwin," during cruise in Alaskan waters, April 16, 1883

BEVAN, A D, Ass't Surgeon—To proceed to Detroit, Mich, for temporary duty, June 11, 1883

GLENNAN, A H, Ass't Surgeon—To proceed to Norfolk, Va, for temporary duty, June 26, 1883

APPOINTMENTS

The following candidates having passed the examination required by the Regulations, were appointed Assistant Surgeons by the Secretary of the Treasury, June 6, 1883

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HENRY TRIMBLE,

(Analytical Chemist)

F. A. GENTH

UNIVERSITY OF PENNSYLVANIA
DR F. A. GENTH
CHEMIST

West Philadelphia, January 24th, 1883
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RENAL DISEASES AND DIABETES, WITH PRACTICAL EXAMINATION OF URINE, by PROF TYSON

NERVOUS DISEASES AND ELECTRO-THERAPIUTICS, by DR S WELK MITCHELL and DR SINKLER at the Orthopedic Hospital

CLINICAL SURGERY, by PROF ASHHURST

OPHTHALMOLOGY, by DR S D RISLEY

DERMATOLOGY by PROF DUHRING

OTOLOGY, by PROF STRAWBRIDGE

GYNÆCOLOGY, by DR F F BAER

OPERATIVE AND GENITO-URINARY SURGERY, WITH

VENEREAL DISEASE, by DR WHITE

CLINICAL AND OPERATIVE OBSTETRICS, by DR F RICHARDSON

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VOL I

SATURDAY, AUGUST 18, 1883

No 6

ORIGINAL ARTICLES

ADDRESS OF THE CHAIRMAN OF THE SECTION ON STATE MEDICINE, ETC

BY FOSTER PRATT, M D, KALAMAZOO, MICH

[Delivered before the American Medical Association Cleveland June 1883]

MR PRESIDENT AND MEMBERS OF THE ASSOCIATION

Your by-laws require of the Chairman of each Section a paper on the "advances and discoveries" of the past year, in the branches of science included in his Section. The somewhat undefined boundaries of the Section of "State Medicine," and the purely practical nature of that part of its scientific domain which is defined, make the task of the Chairman, as declared by the by-law, not a little embarrassing. "Discoveries" which influence and advance State medicine are made and claimed by workers nominally identified with other departments. Physiology, pathology and chemistry, as a rule, make the "discoveries," and the right to report them in all their details and bearings belongs to other Sections. Practical sanitation, the principal aim of "State medicine," makes no "discoveries." It is not permitted to indulge even in the luxury of theories. It uses discoveries when they become established facts, and when they prove to be available for hygienic purposes. I have, therefore, no "discoveries" to report, but of "advances" I have something to say.

Before proceeding to a consideration of these recent advances in sanitary work, permit me to say that psychology, insanity, medical jurisprudence and medical expert evidence have each received, during the year, the attention to which they are severally entitled, but there has been no noteworthy "advance" in either. The cure, or seeming cure, of the insane, in some cases, causing their release from asylum isolation and their return to society, to resume or contract marital relations, and to propagate, by heredity, their unfortunate conditions and tendencies, is beginning to attract attention as a possible—indeed, probable—cause of increasing the percentage of insane to population.

Recent pathological inquiries and researches have suggested the question, What—if anything—may be done by systematic effort to prevent insanity? The question springs, naturally, from present tendencies of medical thought, but, as yet, no answer is given. There has been the usual discussion of the various methods of managing the insane, and with the usual result of continuing, substantially, the established

plan. Expert medical evidence occupies an uncomfortable and undignified relation to American law and practice, but there does not seem to be for the present, any hope of relief. When our law of trials will permit courts to determine who are experts and to call them to testify for *science* and relieve them from the appearance of testifying for a *side*, their evidence will command, more thoroughly than now, the respect and the confidence of courts, juries, parties and people.

The Association has named this the "Section of State Medicine." This seems to be both an incomplete and an incorrect designation. State Sanitation would much more correctly define its purpose and its real work. But in view of the dual agencies essential to the performance of its important function and the nature and purpose of the function itself, it would be much more accurate to designate or define it by the term "Medico-Legal Sanitation." Prevention of disease, and not cure, is its chief purpose, medical knowledge inspires and guides it, law authorizes and sustains it. In the language of Dr Chaille, of New Orleans, "State medicine is the application, by the State, of medical knowledge, to the common weal." It is in no spirit of hypercriticism that attention is called to this matter. The designation given to this Section and its work creates distrust in some quarters, and requires elaborate explanation in others, not to speak of other difficulties, all, or nearly all of which would be obviated by a name clearly defining its nature. If it were called the "Section of Public Health," many prejudices and difficulties would be avoided, and this, perhaps, would be as good a name as any. But names, titles and designations, whether fortunate or unfortunate, have not prevented the progress of this latest manifestation of medical philanthropy and enlightened statesmanship, and it becomes my grateful office to report to you its "advances" in methods, conditions and prospects.

This Section of State Medicine was established by the Association in 1873. It has now completed its first decennial period, and not exceeding fifteen years have passed since systematic sanitary work, with State aid, was begun in these United States. Meeting from year to year, as we have, to estimate and report progress, our advance has seemed, to our impatience, to be slow, but to-day, as we compare the best State sanitary work of 1883 with its beginning in 1873, we must congratulate ourselves and our country that during these ten years so much has been accomplished.

What has been accomplished? Sanitary organiza-

tions and machinery have been developed, and, to a great degree, perfected State and local boards of health, with their secretaries, health officers, and other executive agencies, have been educated, in some degree, for their special work. Voluntary sanitary organizations, sanitary conventions, sanitary books, magazines, newspapers, lectures and discussions, indefinitely multiplied by an unprecedented mental activity in this direction, clearly indicate the professional and popular interest in sanitary knowledge and work. Scientific and costly attention is paid, as never before in the history of man, to the hygienic structure, heating, lighting and ventilating of homes, shops, school-houses and other public buildings. Earth, air and water are investigated, and wholesome suspicions ferret out their unwholesome conditions. Marshy, and other deleterious telluric agencies that extensively pollute atmospheric and aqueous conditions are removed or mitigated by ditching, draining, filling and cultivation. Municipalities without number are supplying themselves with water from purer sources by various systems of supply. Their accumulated filth is destroyed, removed or disinfected and the newly accumulating refuse is carried away by systems of sewerage or other effective agencies.

It is scarcely necessary to remark that hygienic measures, of a certain kind, are as old as the history of civilization, but, until lately, they were used only by great cities. The enormous development of these old and of many new sanitary agencies during the last decade, in towns large and small, are the unmistakable exponents of an unprecedented growth of sanitary knowledge, and of a remarkable intellectual activity among the people regarding its use and application.

It is plain that the people are emancipating themselves from their thralldom to the old superstitions that held them paralyzed and helpless in the presence of epidemics and other fatal scourges, general and local, seeing in them only the special manifestations of God's wrathful punishment of sin. They are beginning to learn that the seeds of many diseases, and their propagation and diffusion, are governed by laws, although their existence is a consequence of a violated sanitary law, and that, by observing the sanitary law, they may, in a measure, escape the fatal results. They begin to understand that

"The curse, causeless, does not come,"

and that it is of prime importance to know and avoid or prevent the true cause. They begin to understand that physical laws may be ignorantly broken without moral guilt, though not without punishment. This gradual emancipation of the people from some of these ancient superstitions, and their paralyzing influence, has been one of the first and most important steps towards inculcating the general belief that much of disease is preventable, and that, so far as it is preventable, it becomes their duty as well as interest to engage in the required measures of prevention.

All this change among the people has had just the effect on our legislatures and law-making powers that was desired, and that is to be anticipated under a form of government like ours. Prior to 1873 but

two States in the Union had established State Boards of Health—Massachusetts and California. Since 1873 twenty-five other States have inscribed "Sanitary Reform" on their banners, and now twenty-seven in all, of the thirty-eight States in the Union, practically proclaim that "the safety of the people is the supreme law," that "public health is public wealth," and that to promote "the health of the people is the first duty of statesmen." Eleven States yet neglect or refuse to enlist in this glorious warfare against preventable disease and unnecessary death. Politicians may not favor nor comprehend institutions and movements that furnish neither place nor plunder for their partisans and followers, capital, entrenched behind profitable nuisances and money-making food frauds, may resist the assaults of indignant humanity, prejudice may decry innovations, and urge that we stand by the "ancient ways," superstition may continue to hold up its hands in holy horror that men should presume to doubt or meddle with the "superintending providence of God," even scientific evolutionists may scorn our work because it assumes to interfere with their law of "the survival of the fittest," and ignorance, the rank and file of this army of opposition, may deride and resist, as at first it always does, its saviors and benefactors, and all combined may delay for a while the "consummation devoutly to be wished," but not long. Success in this grand sanitary movement is certain to come, and not many years will pass before every State of our Union will be engaged in organized effort to battle with the unnecessary ills and evils that torture humanity and enfeeble the State. And when the health boards of thirty-eight States demand a National Board of Health, composed of men who command their confidence, with money and power, to do a quarantine work at the sea-board and on inter-State lines of commerce, that individual States cannot do—then, I ask, when thus challenged, what will the Congress of the United States do? When we ask for bread will it give us a stone?

Resuming our review of the sanitary movements of the decade, the question comes—What primal central impulse has been sufficient, in ten years, to so move upon the popular and the law-making mind of our country as to enlist twenty-seven States in this humane and wholesome movement? After nineteen years of previous agitation by her medical men, Massachusetts, on the Atlantic, in 1869, gave statutory shape to the idea of medico-legal sanitation. California, on the Pacific, followed close after her in 1870. The idea was more fully developed and more fully endorsed in this Body in 1873, by the establishment of this Section, and from here the leaven of statutory sanitation has been carried by our medical brethren into every city, village and hamlet in the land, and now, three-fourths of our States have created for themselves State and local Boards of Health, all of which, in their respective spheres, move with harmony and more or less of efficiency, to accomplish in concert a humane and a blessed purpose. Missouri, the latest recruit, has been added this year to our ranks, Ohio and Pennsylvania have recently made strenuous

but unavailing efforts to join the majority We wish you better success next time, brethren, success is sure to come, we expect you, and others with you, to join us very soon We shall not wait for you in the work, though a warm welcome waits you when you come

The aid and agency of the American Public Health Association, in producing these flattering results, must be recognized Its membership, comprising doctors (without regard to denominations), lawyers, architects, builders, engineers, plumbers, and others actively engaged, either officially or by personal interest, in the planning, testing or execution of sanitary methods, has been a most efficient factor among the agencies by which people and legislatures have been brought to understand, appreciate and promote sanitary work

But first and foremost among all the agencies that have molded public opinion to favor organized hygienic work, stand the individual doctors Each in his own sphere a power Together, it has been their work to inspire patrons and neighbors with a willingness to co-operate, but they have led the way, have shown how, and have demonstrated success And what has been their weapon—what their ways and means? *Facts* Facts and reason have been their principal weapons Facts piled on facts have demonstrated that small-pox can be prevented By its danger to life and features, its loathsomeness, its communicability and its prevalence, small-pox, in the popular mind, stands at the very head of dangerous and dreaded diseases, it stands also—thanks to Jenner's grand discovery—at the very head of the preventable diseases Isolation of other communicable diseases has been proved, over and again, to be an efficient measure to prevent their diffusion Many facts in the history of local epidemics have been used to prove the diffusibility and the diffusion of disease by direct and indirect communication, and little does the layman care about our theories of germ-propagation, when he becomes convinced that the disease is "catching"

But facts are used and are useful on a grander scale Dr Wm Farr, the great vital statistician of England, died only a few weeks since In 1838 he began his long unappreciated and thankless labor in the compilation of vital statistics During thirty long years he, by persistent labor, accumulated fact on fact, piled table on table and added demonstration to demonstration His life tables, at last, became the basis and guide of life insurance, and the passage, in 1872 and '73, of the British Public Health Acts, crowned his persevering labors with a grand success The *British Medical Journal* of April 21 of this year says "It was Dr Wm Farr who created our system of vital statistics, through which the public was taught the necessity for sanitary reforms, especially in our large towns It was, moreover, the public faith in Dr Farr as a vital statistician, that gave weight to the mortality statistics issued by the Registrar-General, thus making possible the passing of the Public Health Acts of 1872 and 1875, from which dates the marked decline in the English death-rate recorded during the past seven years" Again it says "It is not too much to say that the figures

collected by him, the principles which he deduced from them, and the accomplished skill with which he impressed the doctrine of sanitary law upon statesmen and on the public mind, have done more to forward the progress of sanitation throughout the world than the labors of any other man, perhaps, who could be named"

Yes, Mr President and gentlemen, Dr Farr's tables, Dr Farr's deductions and demonstrations were the basis on which, we, in the United States, laid the foundations of our sanitary structure It was mainly from his arsenal of facts and established principles that we drew the weapons of argument with which we won our first victories for sanitary organization and reform Our own workers, inspired by his example and guided by his experience, were soon busy in the same field of vital statistics, confirming Dr Farr's results, or demonstrating wherein and why our differing conditions gave different results

And so we have won our way, the vital facts having been clearly established, on both sides the Atlantic, we have successfully enlisted people and lawmakers in the cause of public health And now, the fact that during the last decade, we have succeeded, in our efforts for sanitary reform, far beyond our expectations at the beginning, should assure us that the average mind is, after all, fairly responsive to the Baconian system of inductive philosophy The *facts* being established, the practical deductions therefrom are readily drawn Our public and private Divy Crok'its in effect say to us, "Be sure you are right and then go ahead" But we must first win them to our cause wholly or mainly by facts, or we (even our best men) will be thrust aside as visionary theorists or perhaps as "salary grabbers" (See congressional debates)

But we shall be asked to state, more definitely, what is or may be done by State Boards of Health, and their auxiliary agencies which justifies their organization and their cost Partly, if you please, from a natural State pride, but mainly because I know more of its operations than of any other, I will answer this question by briefly recapitulating the annual sanitary work of my own State of Michigan

The Michigan State Board of Health consists of seven persons nominated by the Governor and confirmed by the Senate At last report one was a lawyer, one a clergyman and five were physicians, representing two or more schools of practice Sixteen classifications of nearly forty questions and topics permanently important to our sanitary work, are assigned to sixteen standing committees made up from the members of the Board Auxiliary to this, central Board are nearly 1,400 *local Boards*—there being one created by law, in every city, village and township in the State To these *local Boards*, is committed every function they can fulfill, each in its own locality, and to the State Board only such work as local Boards cannot do Permanent correspondents of the State Board are appointed in nearly every important locality in the State At least, two Sanitary Conventions continuing two full days, are held each year under the general direction of the State

Board in some one of the larger towns of the State, and always on invitation of its citizens, and they are so located from time to time, as to reach various localities and awaken interest in the work, wherever held, among the people of the locality—all being invited to attend. The work of these Conventions consists in the reading of papers by men and women previously selected or volunteering, upon some important general or local sanitary question, couched, in the main, in language all can understand, and, in extemporaneous discussions of the questions raised. A list of the subjects thus presented at one such Convention, recently held, will not be without interest: "What the law can do for the health of the people" by Justice Cooley of our Supreme Bench, "Hygiene of the eye" by an oculist, "Ventilation of basements"—including "Filth and Disease Germs" by a doctor, "The care of health a Christian duty" by a clergyman, "How to combat small-pox" by a health officer, "Ambulance Hospital for small-pox in small towns" by a medical member of the State Board, "Purification of water by freezing" by a doctor, "School life and hygiene" by a doctor, "Hygiene and the clerical profession" by a clergyman, "Analysis of samples of milk and of water" by a chemist, "How to utilize the Press for Sanitary purposes" by an editor. This incomplete catalogue sufficiently states the questions, all of which were simple but ably treated. Nearly all were published in the local papers and widely circulated, by copying or otherwise, all over the State. The State Board itself holds regular meetings, at which its standing committees present useful and instructing reports on assigned questions.

Forty correspondents, in various sections of the State, report stately the daily meteorological conditions of their respective localities. Reports paid for and required of physicians, of each case of disease dangerous to public health, are made to local boards as a basis of local action. Weekly or monthly reports from local health officers, during dangerous epidemics, to the Secretary of the State Board, and annual reports from the fourteen hundred local boards of health of the number of cases and deaths from communicable diseases. Births, deaths, and marriages are reported by assessing officers and local clerks to the Secretary of State. This work is far from being perfectly done, but year by year the quality of the work is growing better. But all these reports, convention proceedings, and papers are published in an annual volume, and widely distributed. With this annual volume and the quality of its contents all active sanitarians, at home and abroad, are familiar. Having a full knowledge of the work of our accomplished vital statistician and Health Secretary, Dr H B Baker, I wish to say that it is not excelled in America. All officially connected with sanitary work will fully endorse this encomium. And good as is his work as the executive officer of the Board, valuable as are all his published tables of vital statistics and annual reports, I wish to reveal, what may be to many a secret,—good, I say, as is his published work, he is doing, as a vital statistician, better work and broader work than appears. In due time it will speak for itself.

Now, the cost of all this and more to our State treasury has been less, during the past year, than \$6,000—this being the gross sum annually appropriated for these purposes. Do you think it pays? I am sure of your answer. But this is a work that educates, not doctors but the people, and the significant, the potential answer must come from the people, largely from intelligent laymen who know the value of life and health to the individual, to the family, and to the State. Let the intelligent men of Ohio and Pennsylvania, and other States not yet enlisted in this latest and best work of the nineteenth century—the men who, directly or indirectly, rule the counsels of their States—let them answer. Let such men consider whether the wide diffusion of sanitary knowledge, such as I have described in my own State, the supervision and suppression of endemic and epidemic diseases, and the curtailment thereby of sickness, suffering, and death, is worth \$6,000 a year. And now let me say further, this seeming vaunting of the health work of my own State has been indulged in for a special purpose and in accordance with special requests from various States having no boards, to describe here, and to have it go abroad with the sanction of this great body of medical men, what is done in some States, and what may be done and ought to be done in every State, and how cheaply it can be done. With these facts, and many others not possible to give here, to guide the opinion, it must be left to every intelligent citizen to decide for himself or herself whether all this is worth the money. I said "himself or herself"—it is a fact that the first successful movement made in Massachusetts, and in the United States, in the direction of State sanitation, was instigated by a lady, whose husband was a political leader in the legislature of that State. Women who live at home with their little children, amid unsanitary surroundings, have a great stake in this sanitary movement—aye, and they have great influence to originate and guide it as well, if they will but intelligently use it.

But the cynical and persistently incredulous will ask, perhaps, "How many lives, per annum, do you save?" To this, as yet, we can only answer, "We do not know," and "we never will be able to answer such a question." Our own vital statistics have not yet been carried far enough, nor have they been made thorough enough, to furnish a reliable standard of comparison between distant periods, or to become full answers to such questions. But this we do know—that whereas, by Dr Farr's tables, the average duration of human life in England thirty years ago was for males 39.9 years, it is now, after only seven years of organized and efficient sanitary work, 41.9 years—an addition of two full years to the average duration of male life in all England. The effect on the average of female life is still more striking. Women, as a rule, suffer more than males from the unsanitary surroundings of their homes, and the improved hygiene of cities and towns of England, for the past seven years is now shown to have added to the average duration of female life nearly three years and a half. This is an addition, by a few years of intelligent work, of five per cent to male

life, and more than eight per cent to female life, or an average addition of six and one half per cent to the aggregate life rate of England. It is but two or three months since these gratifying results were announced, and life insurance interests are already speculating on the effect they will have on the rates of insurance and of annuities. Is not this sufficient proof that State sanitation, intelligently organized and discreetly managed, is a good investment? This pecuniary consideration, it is true, is on the lowest plane, but the considerations that lie in the higher planes need no arguments.

I shall carefully refrain from basing rose-colored estimates of results on the meager outline of sanitary work done and now described. It is true I have taken (for various reasons given) my own State as a type of what may be done by any State in this direction. I have given from English what cannot yet be given from home statistics—the results to average life time of seven years' intelligent attention to public health. The conditions, social and economical, that surround these questions, in the Old World and the New, are quite different, and we may expect differences in final results when reached, but who here can doubt that the result in England will be eventually duplicated in America? But our public health work is very imperfect. It is yet in its infancy. Much remains to be done to perfect the work, even of the foremost State. Nevertheless, many States are doing good work, and in different ways and directions. The work cannot be alike in all States, because each has its peculiarities of soil, climate, occupations and populations. While Illinois, West Virginia and New Jersey are doing good work by regulating the practice of medicine and the sale of adulterated foods and drugs, other boards, in the yellow fever region, are noted for some other specialty of work, and all are doing good, but none of them as much good as they may and will do when fully sustained by their respective legislatures. Let us hope the time will soon come when it will be the first care of States to cure their unsanitary conditions, and the first care of newly-organized Territories, organized on virgin soil, to prevent evils for which older States seek costly cures.

But thus the work goes on, rapidly here and feebly there, yet rapidly in the main, as it seems to have progressed during the decade, we feel that it is slow. But in our impatience we must not forget that the medical profession is, of necessity, in advance of the people on these subjects. We must wait for them to understand the significance and practical importance of measures, before we hurry them up to their adoption. Meanwhile, doctors are we ourselves responsible for any of these tardy movements? You who come from States that have not yet organized Boards of Health, are you or any of you responsible, in whole or in part, for their non-action or for their refusal to act? You who come from States whose Boards have but a feeble existence, are you responsible in any degree, by opposition or by indifference, for the crippled existence they lead?

I am not about to preach a sermon or read a lecture, but I shall take the liberty to ask a few questions. Have we not crippled sanitary work, by

claiming for it results that are not yet warranted? Have we not urged as facts in sanitary science, what in truth was nothing more than theory, and sometimes crude theory, too? In dealing with the people of our several States and their law givers on these subjects, is it wise for us to create expectations of sanitary organization and labor that may not be realized? Will we not be wise if we preach a gospel of facts—assured, established, incontrovertible facts—sanitary facts that are proved by experience and the uniform evidence of vital statistics? Our advanced ideas and theories about germs, contagiums, ferments, *et id omne genus*, about which we ourselves are in more or less of confusion and controversy—what are all these but stumbling blocks in the way of intelligent laymen and legislators? When we can prove to our neighbors that a certain stream, polluted at or near its source, causes sickness and death to many families, they will believe your established fact, but how much will they care about your theory concerning the precise nature and function of the morbid agency that is caused by the stream, especially if it leads you to a somewhat too persistent attitude on the question of practical moment—how to purify it? In this country all systems, or so called sects in medicine, like all systems or sects in religion, are equal before the law. Have any of us ever been somewhat too arrogant or exclusive in the organization, or the proposed organization and management, of this public affair? In private relations and in private practice we hold, as we ought, to the observance of a code that ignores as unscientific all medical systems based on exclusive dogmas, but in public, where we meet all sorts of doctors, and their patrons as well as our own, as tax-payers and citizens, to discuss and devise measures of common interest, is not one man's medical theory as good as another's? Does not the experience of States that have most successfully inaugurated sanitary work, serve to demonstrate that the only platform on which hygienic effort can be successfully united is the platform of sanitary fact, and that the best men for the work are not necessarily those who think as we do, either in politics, medicine, or religion, but those who can and will do the most and the best work?

Have we not often failed to secure desired legislation by asking for too much at the beginning? Have we not given our cold shoulder to sanitary beginnings because we thought them too simple and inefficient? Cautious business men, when inaugurating new enterprises, favor small beginnings as a rule, and afterwards embark more in the scheme if it does well, have we not been too strenuous for beginning with a large capital of complex and perfect machinery, too complicated and expensive to be understood and appreciated by those who have the power to create? Do Minervas often spring, full grown and full panoplied, from the brains of our political or our medical Joves? Do not infancy and growth characterize the beginnings of human beings and human institutions alike? While we bear in mind (possibly with some conceit, ill concealed), that knowledge is power, are we not too apt to forget that ignorance also is power? Assuming that our sanitary

ideals are truer and higher than other men's—what force will best propagate them, conversion or compulsion? Finally, what better or more hopeful foundation for sanitary organization and its ultimate success, can be laid in any State, than the diffusion among its people, by all available methods, of pertinent, and reliable, and comprehensible sanitary knowledge? Has not this, in some cases, been too much neglected, and is not the cause of failure in some States to be found in this neglect of an important preliminary? If the people are once fully informed of their true interests in this matter, doctors theories and doctors differences, if thrust in at all, will not long delay their action—discarding us and our notions they will go straight to some practical result, simple, perhaps, but practical, and it will be our own fault if they dispense with our leadership. It is true medical men have made practical sanitation what it is, they have labored for it under ridicule and reproach, they have made its operations profitable and popular in many localities, but they must advance with the people and not too rapidly, the general, on horseback, advancing to battle, too far in advance of his troops, may be admired for his zeal but not for his discretion.

To subserve one of the purposes of this paper, something has been said concerning the methods by which sanitary organizations have been secured and something also concerning the details of their first work, and but little of their main operations and permanent aims. That purpose may be further promoted by adding that while the main and ultimate purpose of the army is to fight, organization, drill and discipline are necessary preliminaries to its ultimate business, and our sanitary forces, when properly organized and drilled for their fight with sickness and death will naturally inquire, "at what points are we to attack?" The sanitary layman asks this question now. He is entitled to an answer.

By general and local sanitary surveys of the State, county or district to ascertain the conditions of land, streams and water-fronts, and when found faulty, to take the needed steps, or ask for the needed authority to remove the fault. This, of course, includes land drainage and the pollution of streams by sewage or by other agencies.

In cities and large towns, to carefully inspect from time to time, the conditions of underlying soil, to regulate the building and sanitary safety of homes and other structures to keep constant guard over the conditions of water supply, to supervise the removal of all filth, refuse and sewage, to keep constant guard over all food sold, including meat, bread, vegetables, milk, or any other article whose impurity or adulteration may engender disease, the burial or other disposal of the dead, the regulation of lodging-houses and crowded tenements, and the abatement of unsanitary nuisances.

The accumulation of vital statistics showing birth rate and death rate to population, the diseases prevalent and the rate of death according to age, sex and population, and the spread of disease.

These enumerated purposes are clearly within the scope of wise sanitary regulation, and are quite

enough to occupy the minds and time of sanitary officials. Time and experience will add other functions, and there is plenty of field and occasion everywhere for sanitary work.

My duty would be imperfectly done in this review if I failed to call attention to the remarkable unanimity with which State medical societies, State Boards of Health, the American Public Health Association, this American Medical Association and the medical profession generally have expressed their approval of the organization and the action of the National Board of Health. The only valid objection ever urged to its functions, or rather to its possible action, is that based on the constitutional question. But it is apparent that there is a quarantine work to be done on the sea board, and a quasi-quarantine work on the inter-State lines of commerce, whether by river or rail, which the individual States cannot always do. If the functions and work of the Board be confined to the work that States clearly cannot or will not do, the constitutional difficulty will not be serious. But whether serious or not, they are not lessened by devolving them on a bureau instead of a board. On this question the people will soon decide in whose hands they prefer to entrust their health, lives and commercial interests, and until they have decided the question is not settled. Meanwhile, it is gratifying to know that medical sentiment is nearly unanimous for a National Board.

Perhaps it is expected that something will be said of the effect of some recent discoveries on sanitary theory and policy.

The very recent investigations by Pasteur, Koch, Chaveau, Spina, Cheyne, and many others, into the nature of the bacillus and other germ forms, are promising remarkable results. Koch's seeming discovery of the tubercle bacillus, and the evidence produced that it is the specific germ by which tubercular phthisis is produced and may be transmitted, seems likely to begin an epoch of great moment in the study and treatment of this and of many other diseases. But before medico-legal sanitation can avail itself of these discoveries for the prevention or the mitigation of disease, very much must yet be learned respecting the laws that govern the life, the propagation and the transmission of disease germs. We must know, as to these bacilli germs, the laws of acquired or inherited receptivity which control their introduction and development in individuals and families, the atmospheric, telluric and other external conditions which modify their power and action in the larger aggregations of society, the methods by which they pass from person to person (we know, for instance, that the tubercle bacillus may be inoculated, inhaled or imbibed), the duration of the incubative period, and the chemical, catalytic or other action by which their effect is produced. Our knowledge on these points must be substantially exact, or be so demonstrated and demonstrable as to pass into the domain of established and popularly accepted fact, before sanitary architects can build on it as on a solid foundation. One rule which long experience has thoroughly justified in other and similar diseases, is strongly confirmed by our new knowledge, and that

is the requirement of the perfect isolation of the infected from the uninfected. Additional importance is also given to a rigid inspection of milk and meat.

We seem, indeed, to be on the eve of great discoveries in the etiology and pathology of disease, which, without doubt, must greatly increase our practical knowledge and improve our treatment of many important maladies. As medical practitioners, if we cannot individually help to hasten the anticipated result, we can help to swell the multitude who anxiously wait for it, but as medico-legal sanitarians, impatiently waiting for newly and firmly established truth, on which to build improved hygienic and sanitary methods, we, metaphorically, hold our breath.

REPORT OF A CASE OF GASTRO-ELYTROTOMY, IN THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN OF THE AMERICAN MEDICAL ASSOCIATION

BY WILLIAM H. TAYLOR, M.D., CINCINNATI, OHIO

On the 17th of May, 1883, I was requested by J. C. Mackenzie, M.D., to see a case of protracted labor with him. From the doctor, who kindly furnished the notes for my report, I obtained the following history:

Mrs. M., American, 32 years old, primipara, apparently healthy, 4 ft 7 inches high, good family history, with exception of considerable pain in abdomen for past six weeks has been healthy during her pregnancy.

On the 13th inst., began to have premonitory labor pains, which have continued to increase to present, except as temporarily relieved by the use of chloral and morphia. The membranes ruptured about 9 P.M., 14th inst., the os then admitting one finger. The head was felt presenting. These general phenomena continued until when first seen by me on the 17th. The conditions were: No appetite, had a care-worn expression, very prominent abdomen, which was not tender on pressure, pulse 120, temperature $101\frac{1}{2}^{\circ}$, pains severe, and violently expulsive, the os uteri about the size of a silver dollar, the head presenting, but so covered by a large caput succedaneum that I could not determine the position, but little change was produced in the position of the head by uterine action.

It was determined to apply forceps. Ether was administered, and after considerable difficulty because of the close contraction of the os around the head and the diminished diameters at the inferior strait, Elliot's forceps were adjusted. Traction was made at intervals for about an hour with no good effect, the head remaining movable above the brim. Laying aside the forceps, I endeavored to introduce my hand, with view to version, but was unable to pass the whole hand because of the contraction of the outlet. I was, however, able to reach the promontory with the index finger, leading to an estimate of the antero-posterior diameter of the superior strait as less than three inches.

Dr. G. Bruhl was now called, as we believed craniotomy alone would suffice to accomplish the delivery. Dr. B. desired to make further effort with forceps,

and after much effort introduced the Busch blades, but with no avail. I now perforated the head and adjusted the Braun-Simpson cranioclast repeatedly, with no better result after powerful effort than each time to bring away the fragment of bone caught in the instrument.

Dr. Bruhl desired to attempt version, but although a leg was caught no effort availed to change the position of the child.

SOME SIX HOURS had now elapsed since I first saw the woman, her pulse was becoming weak and more frequent, and the os and vagina were so oedematous that we could no longer touch the head, we therefore summoned N. P. Dandridge, M.D., with a view to abdominal section. Upon his arrival the question of operation was discussed. Cesarean section was considered because of the rapidity with which it could be executed, but after deliberation it was determined to attempt "Thomas" operation as the less severe, and, therefore, less likely to prove fatal from shock in the enfeebled condition of the woman. Porro's operation was not suggested.

The patient was much exhausted with a very rapid, feeble, pulse, and elevated temperature, the fundus uteri was well to the right and the child's head could be felt in the left iliac fossa. Owing to this obliquity, the left side was selected for the incision instead of the right as usual, for it was thought the os uteri would be more accessible from the left. The preparations for the operation were soon made. The room was lighted by a single lamp, so to secure sufficient light, several candles were tied together and two torches thus made, the limited number of assistants made it necessary to entrust the lights to two women friends, who held the candles with their heads averted for fear of seeing the blood during the operation, and more than once we were embarrassed from the lights being improperly held. The woman was etherized and then placed on a kitchen table. Dr. Dandridge, as Surgeon, standing on the left of the woman and I just to his right, Dr. Bruhl using sponges on the right of the woman and Dr. Mackenzie caring for the anæsthesia. The incision was commenced above and just outside of the spine of the pubis, and was extended parallel with and about three-fourths of an inch above Poupart's ligament to a point somewhat beyond the anterior superior spine of the ilium, the subcutaneous fat which was quite thick, was divided and the aponeurosis of the external oblique and the underlying layers of muscular fibers carefully incised on a director, the full length of the external wound. The transversalis fascia was then carefully divided on a grooved director, the deep epigastric artery was cut and at once secured with hæmostatic forceps and then ligated, so that the amount of hæmorrhage during this part of the operation was small. Dr. Dandridge carefully stripped the peritonæum from the iliac fossa with his finger, when I placed both hands in the wound, gently pressing back the peritonæum and retaining the subjacent bowel.

Dr. Dandridge passed his left hand into the vagina and forced the vaginal wall to the right hand in the external os.

REPORT OF A CASE OF GASTRO-ELYTROTOMY

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possible to determine the thickness of the vaginal wall and make sure that the bladder was not intervening. A small opening was then made in the vaginal wall with scissors cutting on to the finger in the vagina, this opening was enlarged by a slightly curved blunt-pointed knife. While the knife was still in position I passed my finger along its back into the vagina and hooked it securely into the os, the vaginal wound was then enlarged, principally by tearing, Dr Dandridge's hand passed through the wound, readily seized the leg, which had been caught in the effort at version, and drew it into the wound, this effort complete the delivery easily, but owing to the firm contraction of the uterus around the child, this effort failed. Dr Bruhl sought the other leg, but was also unsuccessful in effecting version, but with the Braun-Simpson cranioclast the head was secured and extracted, the placenta followed at once, the uterus contracting well, the wound was washed out with a carbolic solution, a large drainage tube was passed through the wound into the vagina and projecting from the vulva, and the edges of the external wound closed by sutures. During the operation and at its termination a half ounce of whisky was injected into the rectum, the woman was placed in bed with hot bottles about her, morphia sulph gr $\frac{1}{4}$ and atropia sulph gr $\frac{1}{100}$ were given hypodermically, with directions to give morphia sulph gr $\frac{1}{6}$ and half an ounce of whisky every two hours. A bandage was placed around the body. The child probably weighed six pounds. The operation was complete about 9 P M.

The shock of the operation, considering the state of the patient, was certainly less than was to be expected, and not to be compared to that which would have followed Cæsarean section. I believe if the latter had been undertaken the woman would have died on the table. Five hours after, her pulse was better than before the operation, and twelve hours after the operation the temperature had fallen and the pulse was stronger and a little less frequent, but this slight promise of recovery was not verified, and she died forty-four hours after delivery, having in the meantime received the most approved treatment for such cases, viz stimulants, anodynes, the use of the "ice cap," "Kibbee cot," etc, her urine was freely secreted and drawn several times by catheter, her bowels were moved by enemata.

Autopsy—Sixteen hours after death the weather was warm, and there were some evidences of decomposition about the body, slight cadaveric rigidity, nutrition apparently good, abdomen greatly distended and tympanitic, a wound in the abdominal wall $4\frac{3}{4}$ inches long, situated upon the left side above and parallel to Poupart's ligament, extending from the anterior superior spine of the ilium to the spine of the pubis, the edges of the wound were united by sutures, and when these were removed it was discovered that no union had taken place, but that the wound was occupied by a small quantity of dark coagulated blood. When the peritoneal cavity was opened a small amount of gas escaped, probably from decomposition, as no other source for it was found, and some emphysema of the tissues existed. The greater part of the abdominal distension was

due to gas contained in the stomach and large intestine. There were not the slightest indications of inflammation of the peritonæum, no adhesion existed, and no inflammatory products could be detected, although carefully looked for. The bladder was intact, there was a transverse incision in the left side of the vagina about an inch below its attachment to the cervix, and extending from this upward to the uterus, but not involving it, was a longitudinal tear. The cervix uteri was extensively lacerated, and there was also a laceration in the posterior wall of the vagina, about on a level with the margin of the pouch of Douglass, but not involving the peritonæum. There were two transverse tears in the posterior wall of the uterus, one an inch in length, an inch and a half above the os uteri, the second two inches in length, an inch and a half above the first, these did not extend deep into the muscular tissue.

The diameters of the straits of the pelvis were carefully measured, after all the soft parts were removed, the periosteum only remaining

SUPERIOR STRAIT		
Antero-posterior diameter,	$3\frac{3}{8}$	inches
Transverse	$3\frac{7}{8}$	"
Right oblique	$3\frac{7}{8}$	"
Left	$3\frac{3}{4}$	"

INFERIOR STRAIT		
Extremity of sacrum to pubis,	$3\frac{5}{8}$	inches
Transverse	$2\frac{7}{8}$	"

At the brim of the pelvis corresponding to the symphysis pubis there was a projection backward of the bone, to the extent of $\frac{3}{8}$ of an inch, diminishing the conjugate diameter to that extent.

The other organs were not examined.

Remarks—The subject of gastro-elytrotomy has been so thoroughly considered by H. G. Garrigues, M.D., in his exhaustive monograph, that no historical or theoretical review at my hands would be justified, but the operation has been so seldom performed that every practical point which can in any wise add to our knowledge and just appreciation of its value is entitled to careful study. The case which I have had the honor to lay before you, while unhappily it can not be credited with success, still it offers favorable answer to some theoretical objections. The earlier operators (except Baudelocque) believed that the operation was not feasible on the left side, because of the presence of the rectum, and Garrigues urges the attempt when opportunity should offer. Such opportunity presented in Hime's case and again in ours, because of the right obliquity of the uterus. The incision was accordingly made on the left side, affording ample space for the removal of the child, and as unfortunately we had occasion to see without injury to either bladder or rectum. Upon this point, Dr Dandridge, says "The danger of making the incision on the left side, namely—wounding the rectum, is, I believe, entirely theoretical, on the contrary, from the experience of this single case I believe that the left side possesses decided advantages

over the right. The operator is enabled to insert his left hand into the vagina, and thus have the right free to use the knife or scissors in opening the vagina—a critical point, the use of the finger in this manner, is, I am sure, much safer than a plug of wood as has been suggested, and renders the use of an instrument in the bladder superfluous, as you can easily determine whether or not the bladder is intervening by the thickness of the tissues between the fingers. Again the sense of touch may enable you to feel and avoid an artery in the wall of the vagina, as was done by Skene.”

Objection has been made to the operation because of injury to the peritonæum in raising it from the iliac fossa. In the case narrated, no difficulty whatever was experienced in lifting the peritonæum. The statement of Hime¹ upon this point may be cited as our own. “The peritonæum being much more ample than in non-pregnant women, and hanging in folds at the bottom of the wound.” Prof Kinhead,² in addition to objecting to operating on the left side, expresses the opinion that the peril from hæmorrhage would be greater in gastro-elytrotomy than in Cæsarean section. Theoretically, I cannot agree with such apprehension, and our practical study positively controverts it. We expected some hæmorrhage, and were prepared for it. The deep epigastric artery was cut, but its divided ends were seized with hæmostatic forceps, and but slight bleeding occurred.

The introduction of the finger into the vagina, instead of a wooden plug, as at first proposed, is, as suggested by Skene, of great advantage in aiding the selection of the proper place for cutting its wall. The clipping of the wall at the point made prominent by the finger is a very easy and safe method of opening the vagina. After the opening was made, the fingers were chiefly used for its enlargement to a degree sufficient for the passage of the child. This part of the operation, which is considered the most dangerous because of the liability of hæmorrhage, was almost without bleeding, so that I believe I am entirely truthful in saying that not more than two ounces of blood were lost during the whole operation, in this respect fully verifying the recently expressed opinion of Prof W. M. Polk, that the operation “involved little or no danger to the ureter, blood-vessels or tissues.”³

Having had opportunity some years since to perform the operation on the body of a woman far advanced in pregnancy, I was impressed with the great difficulty of delivering the child through the incision, but I now believe that such difficulty largely results from post-mortem rigidity, which is usually present when such operations are made on the cadaver. In our case, no difficulty was experienced in verting the uterus by pressure on the fundus, the finger alone sufficed to bring the expanded os uteri to the opening in the groin. I was surprised at the facility with which the dilated os, the vaginal wound, and the external incision were brought into close relation and direct line, so that a straight instrument, e. g., the bone forceps, could be passed into the uterine cavity. To ex-

plain this abnormal facility, I recall to you a well-known result of such protracted labors, which I believe has not been referred to in this connection. Lusk, speaking of labor where the contraction of the pelvis is such as to keep the head at the brim, says “The uterus retracts up over the head of the child, if the head does not descend, the vagina is drawn upward.”¹ Now, in this process, peculiar to the cases which are especially adapted to this operation, we have developed the conditions of vagina materially facilitating delivery through the wall, also, by this extension, the danger of injury to the ureter is greatly diminished.

Prof Kinhead,² in commenting on the cases reported up to 1880, says “It is worthy of note that in none of the recorded cases did the patient suffer from the distressing vomiting so common after the Cæsarean section,” and our case adds one more of this favorable condition after operation, and also another (the fifth) in which the bladder was not injured.

The honored projector of this operation, Prof T. G. Thomas, when he made his first report upon it, said, “All that I am striving to prove is that it *probably* has fewer and less grave dangers attendant upon it than the Cæsarean section has,”³ and allow me to add my humble testimony to that of others, that experience *does* prove it.

APPENDIX

CASES OF GASTRO ELYTROTOMY PREVIOUSLY PERFORMED—*Case 1* (*American Journal of Obstetrics*, May, 1870.) Prof T. G. Thomas. Woman, multipara, sick ten days with pneumonia. Child turned born alive. Mother and child died in an hour.

Case 2 (*American Journal of Obstetrics*, April, 1878.) Prof A. J. C. Skene. Primipara. Contracted pelvis. Version attempted, craniotomy performed, abandoned because of œdema of parts and narrowness of pelvis, forty eight hours after commencement of labor. Prof Skene operated, death in seven hours.

Case 3 (*American Journal of Obstetrics*, February, 1876.) Prof A. J. C. Skene. Multipara. rachitic, child previously by craniotomy, another at seventh month, another by induced labor in ninth month, with version, child lived for several months.

October 29, 1875, at full time, early in labor. membrane unruptured. Gastro elytrotomy. Mother and child saved.

Case 4 (*Am J Obstet*, October, 1877.) Prof A. J. C. Skene. Primipara, æt 37, great deformities. Operation four days after labor began, artificial dilatation of os uteri, great difficulty in operation because of deformity of woman. Mother and child saved.

Case 5 (*Am J Obstet*, April, 1878.) Prof T. G. Thomas. Primipara, æt 20, “very small and undeveloped, labor far advanced,” operation December 3, 1877. Mother and child saved.

Case 6 (*London Lancet*, 1878, vol II, 656.) Thos Whiteside Hime, Sheffield, Eng. Ninth pregnancy, æt, 37, cancer of recto vaginal septum obstructing vagina, had been confined to bed eleven

¹ *London Lancet* II 656 1878

² *Dublin M d Jour* May 1880

³ *Am J Obstet* May 19 1883

¹ *Am Gyn Trans* iv 363

² *I c*

³ *Am Jour Obstet* May 1870

weeks, and for 48 hours had been vomiting incessantly, has had diarrhoea several days

Operation July 14, 1878 Incision made on left side Child saved, mother died in two hours

Case 7 *Brit Med Jour*, November 30, 1878 A W Edis, London, Eng Primipara, medium stature, pelvis small, undeveloped, conjugate not exceeding $2\frac{1}{2}$ inches Forceps tried twice, sudden development of large thrombus in right labium Gastro-elytrotomy about 18 hours after labor commenced, live child delivered Mother died from collapse 40 hours after operation

Case 8 *Am Jour Obst*, January, 1880 W R Gillette, M D Primipara, æt 23, rachitic, 4 ft 4 in, high, antero-posterior diameter $1\frac{1}{2}$ inches, child dead before operation

Gastro-elytrotomy eighteen hours after rupture of membranes Much difficulty in dilating os uteri, which was finally incised with scissors Great difficulty in delivery of child, forceps, version and craniotomy failed, cephalotripsy and cranioclast succeeded Mother recovered

Case 9 *Am Jour Obst*, October, 1879 J T Everett, M D, Sterling, Ill Removal of calcified fibroid of uterus Woman recovered

DISCUSSION

N P Dandridge remarked, in regard to Dr Taylor's paper, as follows

I have but little to add to the details that Dr Taylor has already given of the case he has reported I desire, however, to emphasize what he has said of the facility with which the operation was accomplished The conditions by which we were surrounded were certainly not such as were favorable for the performance of an unusual and difficult operation The absence of an unusual and difficult operation The absence of sufficient light was at times especially embarrassing This was particularly felt during the first steps of the operation when the abdominal muscles were being incised and there was danger of wounding the peritoneum

This membrane once recognized and pushed back, the subsequent procedures were guided more by the sense of touch than by sight The number of assistants present was too limited, and this was also an embarrassment These facts are especially dwelt upon to show that the operation may confidently be undertaken without special preparation of any kind, and with such means as are ordinarily at command for the performance of any surgical procedure

In most of the cases of laparo-elytrotomy which have thus far been reported, the conditions requiring the operation have been recognized either before or early in labor, and thus the operator has had time for full consideration of all the necessary steps of the operation, and to prepare himself for the complications which are likely to arise In the case reported it was only after prolonged efforts had been made that the impossibility of delivering through the natural passages was determined, so that the woman was in such a condition of exhaustion that it was absolutely necessary to at once determine the course we should pursue For my part, I was summoned without any knowledge of the previous or existing conditions,

and was influenced in urging the performance of laparo-elytrotomy rather than Cæsarean section, which at first sight seemed certainly easier of execution, by the exhaustion of the woman, which was such that it seemed scarcely possible that she could survive so severe a shock

I was, I confess, both surprised and delighted with the facility and rapidity with which the operation was concluded—an operation I had always regarded as necessarily intricate and requiring considerable time The hæmorrhage we encountered was trifling, the epigastric artery was readily secured, and there was really no appreciable bleeding from the wound in the vaginal wall The experience of this case, contrary to what has been said heretofore, leads me to think that the left side possesses decided advantages over the right, for when the first steps have been completed and the peritoneum stripped back, the left hand inserted into the vagina enables you to appreciate between your fingers the thickness of the intervening tissue, and thus determine whether you are free of the bladder or not, and it is certainly much safer to cut directly upon the sensitive finger rather than a plug of wood, as has been suggested In all these manipulations the operator has his right hand free for the use of instruments, which to most is an advantage if not a necessity

I was a student in the College of Physicians and Surgeons when Dr Thomas reported his first case before the class, and I well remember the impression the recital made upon me at the time Once I have had an opportunity of assisting at the operation upon the cadaver—the case referred to by Dr Taylor, and in our recent experience was much impressed with the greater facility with which it could be executed upon the living

THE SURGICAL TREATMENT OF INTESTINAL OBSTRUCTIONS.

BY H O MARCY, M D, BOSTON, MASS

[Presented to the Section on Surgery and Anatomy Cleveland June 1883]

It may be accepted as an undisputed fact that our operative art has won its greatest triumphs during the last decade in the field of abdominal surgery The peritonæal cavity is no longer the "terra incognita" of the surgeon, and its invasion is not attended with the fears or dangers of even a very recent period The removal of ovarian tumors is not invested with serious dangers Hysterectomy is considered a justifiable operation in quite a variety of diseases Kidneys are extirpated, with a fair showing of success Biliary calculi are not exempt from surgical interference

Gun shot wounds of the abdomen and intestines are no longer treated with opium, and death awaited as almost certain, but the injured portions are, so far as possible, restored in their continuity or resected and the removal of malignant growths involving the digestive organs is even advocated by some, whose opinions are worthy of the greatest respect

Crowned with such laurels, is it surprising that the surgeon demands a revision of the entire question of

operative interference in intestinal obstructions? Little can be added by any student of the subject to the masterly and classical literature already contributed upon the causes, frequency, course, symptoms, pathological changes and post-mortem appearances. Dr Fagge in his able article upon intestinal obstructions¹ states "that in Guy Hospital, in the last fifteen years there had been seventy-five fatal cases, and of these seventeen were from strangulation produced by some solitary omental or mesenteric band."

Dr Brinton collated 600 cases, of these 31 per cent were from bands, 43 per cent from intussusception, 13 from stricture, and 8 from torsion. He gives it as his opinion that most of these cases were subject to surgical relief. Dr Fagge writes "I regard the facts derivable from our post-mortem records as indicating no insurmountable obstacle to the success of an exploratory operation in a majority of the cases of true intestinal strangulation which are to be found in these records."

It would be very interesting to pursue this line of inquiry farther, pathological literature, yea, our own clinical experiences are full of significant histories with the added query "of what might have been."

Intestinal obstructions may well be subdivided into, First, The chronic, which is gradual. Second, The late acute which usually supervenes upon the first, and, Third, The early acute. Under these divisions are included impaction of feces, fibrous and cancerous strictures, polypi, tumors, abscesses compressing the bowel, intussusception and injuries, but we shall discuss only the question of acute obstructions.

The first and most important consideration is not only an accurate but a prompt diagnosis. Every hour brings fresh complications which obscure and render more difficult positive conclusions, and, just as in external obstructions of the hernial class, seriously endanger the well-being of the patient. The comparison with hernia would emphasize the consideration of relegating the entire class of internal obstructions to the surgical domain, upon precisely the same grounds as external obstructions. Both are mechanical and both should be submitted to wise surgical procedure. Within this realm should be included the use of rest, opium, cold applications, and just as appropriately as to a fractured limb or an inflamed knee joint.

Granted that the diagnosis of complete intestinal obstruction has been determined, the earlier operative interference is decided upon the wiser and better. When nothing is done, we are aware a certain number of cases recover, but the percentage under the wisest medical management has ever been small. A twist, an intussusception, an entanglement by a solitary firm band, producing a complete occlusion usually goes on rapidly to danger from local interference in circulation, arrest of nutrition, compression, reflexive suffering, peritonitis, resulting gangrene, collapse and death. This series of symptoms is generally one of geometric ratio of progressive dangers. Knowing the end all too well from the beginning, let wisdom dictate an early interference. What may be done short of exploratory abdominal incision?

The gaseous distension, which causes very much suffering, and often distressing vomiting, may be usually only partially relieved by puncture. We have known a number of cases thus benefited. Even a considerable-sized trocar has been used, and is generally necessary, for the intestinal contents are usually of a thin gaseous character, the gases being intimately blended with the secretions. This is much less dangerous than might have been supposed, since the eversion of the soft, velvety mucous lining with its villi, quite securely plugs the opening through the muscular and peritoneal coats of the intestine made by the trocar, and prevents the exudation of its contents into the peritoneal cavity. The aspirator used for such a purpose is much the safer instrument, since relief may be secured through a smaller canula. This procedure, if successful, relieves the pressure upon the constricted portion, lessens muscular paralysis, thereby in proportion restoring peristaltic movements of the bowel, which may result in undoing a twist. Dr Warner's spiral trocar is claimed to be of great value. This is usually palliative rather than curative, and much precious time is lost in awaiting its results.

In intussusception, the old Hippocratic plan of inflation may be tried, and this is much more likely to succeed under anesthetics. Care must be used not to rupture a weakened intestine. Dr Thomas Hawkins, of New York,¹ strongly advocates hydrostatic pressure, and gives a number of successful cases. His three rules essential to success are. First, the use of the utmost possible force, but with great care and caution. Second, persistent and continuous repetition of the injection until the passage is effected. Third, the adaptation of a suitable position for the patient. It seems easy to believe that fluid must possess material advantages over air. Indeed, it is a reversal of the old classical remedy of a mercurial column applied from above by its administration per orem.

Such measures having been considered, it remains for us to repeat our emphasis in favor of early gastrotomy. We believe this should never be undertaken without the most careful antiseptic precautions. The incision should be made in the median line, since we can never be entirely certain of the location of the obstruction, and the opening in the median line is not only a safer one for many reasons, but gives the greater advantage for a careful examination of the abdominal contents. The greatest mechanical difficulty lies in the distended condition of the intestines above the obstruction, giving oftentimes great trouble in their control, and by the rolling out of intestinal coils causes exposure of large peritoneal surfaces. This is important to prevent as far as possible, since a rapid lowering of temperature results from such exposure, and may induce shock, and also greatly increases the dangers from germ infection. The aspirator should be at hand on this account, and its use after the incision may prove of the greatest value.

Having rendered managerial² aid this is best done before any¹ of the abdominal wall—enlarge

¹ Guy Hospital Reports 1868

² Medical and Surgical Reporter

to make an easy and careful inspection of the parts. Through fear of a long incision, much confusion and damage may and has resulted, by a blind groping after the obstructed portion. This found, be guided by its factorage. If there are long bridles of peritoneal bands, then simple division may be all that is required, if a twist or intussusception, perhaps these are as easily remedied. What shall be done if necrosis of the intestinal tube has already supervened? One of two devices only is left for selection. Artificial anus, i. e. stitching the ends of the canal into the wound, with the hope of some further operative procedure, or resection of the necrosed portion, with a very careful adjustment of the divided ends and mesenteric attachment. This must be done in such a manner as to bring the peritoneal surfaces in apposition, and in this way the wounded edges and mucous membrane are all turned into the intestinal cavity. Silk may be used, but at times proves an irritant. Catgut, if old, may be reliable, but frequently is absorbed too early, and properly prepared animal ligatures are to be preferred.

We are all familiar, indebted especially thereto the careful studies of Sir Spencer Wells, with the rapid exudative repair processes which take place under the opposed peritoneal surfaces. In one instance, where we resected seven inches of the necrosed small intestine and death supervened thirty hours afterward, the exuded lymph had entirely encircled and covered in the approximated parts.

Having restored the continuity of the intestinal canal, readjust its relationships and close the abdominal wound. This is effected precisely as in ovariectomy, its essential factor being, as with the intestine, a careful approximation of the peritoneal surfaces. For this purpose let the stitches always be taken from within outward, inserting the needle about one half an inch beyond the divided peritoneum. We believe gastrotomy should never be undertaken without the most careful antiseptic precautions. Many superficial students and opponents of antiseptic surgery refer to the spray as the summum bonum of the method, when, at best, in reality it is a minor factor. He who becomes familiar with the underlying broad principles of sound philosophic reasoning, the careful details of method, and the astounding array of demonstrated facts will need little urging to give antiseptic surgery his enthusiastic support. Let it be held in remembrance that the whole endeavor of antiseptic surgery is not a wound benefited by carbolic acid or other medication, but thereby to secure a wound free from all germ infection, surgically clean, aseptic in character, as nearly as possible one like in condition to a subcutaneous injury.

If this has been effected, and this is not alone the theoretic aim of Mr Lister and his followers, but is as a rule a sure accomplishment, then we may rest assured that our patient, if operated upon early will probably recover. Great care in such operations must be taken not to reduce the temperature of the body, for heat is rapidly lost from the exposure of large surfaces of the peritoneum, and by the retention of its equilibrium a better capillary circulation is maintained, and shock is in large measure avoided.

Hæmorrhage is an exceptional and unimportant complication in this class of operations, since no large vessels are implicated. General and dangerous peritonitis is almost invariably septic, and with the exclusion of this factor, which may, as we have already claimed, be secured, a favorable prognosis can be given. In conclusion, let us be permitted to state that the operative surgeon should be guided by a wise consideration, based upon a thorough knowledge of the whole question, and that he is subject to the gravest of all responsibilities, remembering at the same time that the sins of omission are equally to be judged with those of commission.

ON A NEW METHOD OF OBTAINING PURE PANCREATIC JUICE

BY L. B. TUCKERMAN, M. D.

[Read to the Section on Practice of Medicine, Materia Medica and Physiology of Am. Med. Association, June 1883.]

Physiologists are wont to employ one of two methods in obtaining pancreatic juice for purposes of experiment, viz, the method of Claude Bernard, and that of Ludwig and Bernstein. It is needless here to go into the details of either operation.

The method of Claude Bernard is open to the following objections:

1. Fixing, as it does, a temporary canula in the duct and collecting the secretion while the animal is under the shock of the operation, we can hardly assume the secretion to be normal.
2. This method offers but little opportunity for investigating variations in the character of the secretion dependent upon the period of digestion or upon the animal's diet.

The method of Ludwig and Bernstein is also open to objections, for

1. The secretion of the fistulous tract kept open by the lead wire mingles with the secretion of the gland.
2. The irritation of the loop of wire in the pancreatic duct must tend to keep the gland itself in a state of chronic irritation, thus altering the character of the secretion.

3. A considerable part of the pancreatic secretion is permanently diverted from the intestinal canal. This must more or less interfere with normal intestinal digestion and thus keep the animal in a pathological condition, thereby vitiating every secretion. In view of these objections we think the conclusion of Dr. Flint a sound one—viz, "We are not disposed to admit that the fluid, collected by recent German observers from permanent fistule, represents physiological conditions" (Text Bk. of Phys. 1881, p. 271).

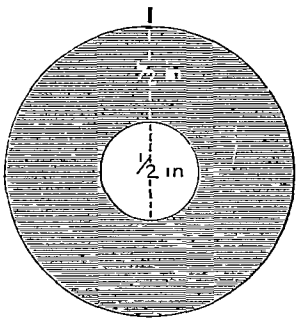
With a view of avoiding, as far as possible, the sources of error above enumerated, we sought to devise a plan by which the pancreatic duct could, like Steno's duct, be catheterized at will. During the past few weeks we have succeeded in so doing by means of a permanent fistula, opening into that part of the duodenum which lies directly opposite the mouth of the pancreatic duct. The outer opening, and the outer flange of the canula used, are precisely

like those of the ordinary canula for gastric fistula. The inner opening, however, is elliptical, its longer axis measuring $\frac{3}{4}$ inch, and its shorter $\frac{1}{2}$ inch. The inner flange is curved in the direction of the shorter axis of the opening, the radius of the curve being $\frac{3}{8}$ inch.

The details of Claude Bernard's method were followed as far as regards opening the abdominal cavity and drawing out the duodenum and head of the pancreas. The duodenum was then opened by a longitudinal incision at a point opposite the mouth of the duct, into which a probe was then passed. The canula was passed over the probe, the long axis of its inner opening being placed lengthwise of the gut. The latter was then stitched about the canula in such wise as to bring the mouth of the duct directly opposite the center of the inner opening of the canula. The position of the mouth of the duct was determined by means of a light thrown down the canula from a head mirror. The parietal peritonæum was then stitched together and to the gut about the canula, and the wound in the abdomen closed.

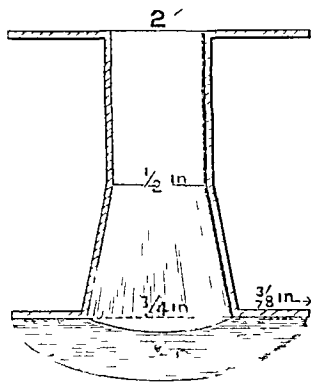
When the animal had recovered, it was found that the mouth of the duct was still opposite the inner opening of the canula.

The accompanying figures will give an idea of the canula, and of its relations when in situ.



1 Outer fringe of canula—natural size

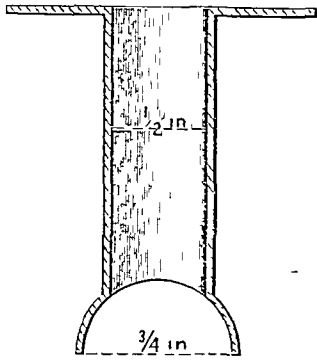
For catheterization of the duct the animal is laid upon its left side, held still by assistants, and light is thrown down the canula by means of a head mirror. We have best succeeded with a small glass canula drawn down to about one half inch in diameter and



2 Section of canula in longer axis of inner opening

slightly bent about one-fourth inch from the small end.

The fluid thus obtained is perfectly transparent, distinctly alkaline and with marked amylolytic, pro-



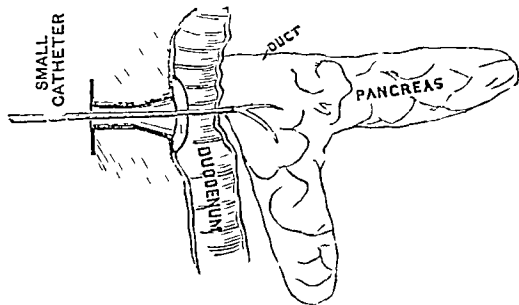
3 Section of canula in short axis of opening

teolytic and emulsive properties. The advantages of this method are—

- 1 The animal is as nearly as possible in a physiological condition.
- 2 The fluid is obtained without causing the animal any marked inconvenience, and is unmixed with any other secretion.
- 3 The fluid can be drawn at any time.

The difficulties are: 1 No self retaining catheter has as yet been devised, hence the experimenter must hold the small canula in place while the fluid is being drawn. This renders no little patience necessary in order to obtain the fluid in quantity.

2 Unless the mouth of the duct has been accurately fixed opposite the center of the inner opening of the permanent canula, the peristalsis of the gut



4 Section of duodenum showing canula in situ with small catheter in duct

may at times draw the mouth of the duct out of sight. This makes it specially difficult to catheterize the duct while food is passing through the duodenum.

The lines of experiment to which this method would seem best adapted are

- 1 To determine what, if any, are the variations in the character of the pancreatic secretion during different periods of digestion.
- 2 To discover whether difference in diet affects an appreciable difference in the amylolytic, proteolytic and emulsive properties of the secretion.

3 It may prove useful also, as Dr H P Bowditch, of Boston, suggested to us, in studying the supposed relation of the spleen to the secretion of trypsin

One other observation is perhaps worthy of mention here. It relates to the behavior of milk in the alimentary canal. Though physiologists tacitly assume that the primary digestion of milk is gastric, Roberts has shown ("On the Digestive Ferments," p 41) that "tryptic digestion of milk is rapid, and leaves only a slight residue, whereas peptic digestion is slow, and leaves a larger residue," while Ewald ("Lectures on Digestion," p 90) has proven that the pancreas, even in new born animals, is very active. Now, in this animal, milk, when fed alone, passes immediately and almost unchanged into the duodenum, where it appears mingled with bile and pancreatic secretion. If more extended observation shall show that the primary digestion of milk is wholly or in part tryptic rather than peptic, taking place in the duodenum rather than in the stomach, we have a physiological basis for a line of treatment clinically successful in certain digestive disorders of infancy, viz. The exhibition of alkalies and drugs that, like ergot, *nux vomica*, etc., stimulate the unstriated muscular fiber. In such a case simple atony of the muscular walls of the stomach would seriously retard the process, even though the gastric secretion were perfectly normal. Moreover, one objection to the use of pancreatin, viz. that it is destroyed in the stomach, is removed, if, when taken with milk or other fluids, it be rapidly passed into the duodenum.

BLOOD-LETTING AS A REMEDY IN THE TREATMENT OF ECLAMPSIA PUERPERALIS AND "ACUTE PNEUMONIA"

BY T C M'CUCCLOCH, M D, OIL CITY, PA

On the 2d day of July, 35 years ago, I was called to attend Mrs John Carson, of Armstrong county, Pa. in labor with her third child.

She was a large, muscular woman about six feet in height and built in proportion. A short time before my arrival, she was delivered of a still born child. The womb was contracted, the afterbirth expelled. There was no hæmorrhage, and she was comfortably "put to bed." I say put to bed, as in those days women were nearly all delivered on the floor on their knees, and afterwards put to bed, apparently she was all right.

Whilst seated at the breakfast table enjoying my morning meal, after a seven mile ride, congratulating myself upon my "good luck," and easy made fee, I was startled by a scream from the nurse, followed by doctor! doctor! On entering her room, I found my patient in a *horrible* convulsion. I say "horrible," for what can be more horrible to the practitioner than a woman convulsed, distorted and blackened by a puerperal convulsion, muscles convulsed, features distorted, respiration gives forth a hissing sound, froth issues from between the clenched teeth, the eyes are rolled upward, and spasmodically jerked from side to side. Truly the condition of the patient is

"horrible" and well calculated to strike terror to the friends and alarm the doctor, especially if he is young and inexperienced.

At this period in medical therapeutics, there were but few remedies. Blood-letting, speedy delivery, and opiates in some form, were laid down as the essentials.

The room where the patient lay was small. The head and foot of the bed were wedged in between the wall and the partition, and as each proxysm occurred she actually shook the whole building. I bled this patient six times, once from both arms at the same time, allowing the blood to flow in full streams without regard to quantity. Her hair was cut off and cold applications applied to her head. She was cupped on the temples and back of the neck. She had twenty-three convulsions, occupying a period of twenty-four hours, during which time she was insensible. Her tongue was bitten, lips swollen, and face bloated, presenting an appearance unrecognizable to her friends.

Now, I think I hear the reader say, between the *doctor* and the *disease* she was a pretty well used up woman. But the convulsions ceased and she made a good recovery. She raised quite a large family. Had no return of the disease, but she was always bled once or twice prior to her confinements.

And let me say here that I believe I have prevented the occurrence of more cases of convulsions by timely blood-letting than I ever was called on to treat.

This lady afterwards gave birth to two sons who became prominent physicians—the oldest, Dr Thomas Carson, who is at this time practicing in Saltsburg, Indiana County, Pa., the other, the late Dr John Carson, of Leechburg, Pa., who fell a martyr to his profession during a malignant epidemic of diphtheria, which prevailed in Armstrong county three winters ago. He died from a wound upon his hand, poisoned from the secretion while in the act of swabbing a child's throat.

This case of Mrs Carson's I give as a typical case of the disease and the treatment thirty-five years ago.

Now, according to more recent views as to the cause, and the pathology of this disease, this was very bad treatment. Has the character of the disease changed? We know that the treatment has changed. But have there been any better results? Let us see. "I speak as to wise men, hear ye what I say." Upon looking over my Obstetrical Register, which I have kept faithfully from the first to the last case, noting all abnormal points in the labor, and writing out in full a history of all bad cases, I find I have seen fourteen cases of this disease, eight of which were patrons of my own, six I saw in consultation with other physicians. Of these eight cases seven were primipara. In one case I performed craniotomy, six were delivered by the forceps. But one, the case of Mrs C., the child was born before the convulsions took place. All the cases were heroically bled, and all recovered but one.

My first case was in the summer of 1848, my last case was in the fall 1878—comprising a period of thirty years.

Now, this has been my experience with the lance, in combatting this formidable disease—eclampsia puerperalis, and I give it to the profession for just what it is worth and nothing more. You may say that such treatment is barbarous and belongs to the dark ages. I have heard men say so, medical gentlemen, too, who stand high in the profession, men whose hypodermic syringe never becomes rusty for want of use, men who never bled a patient in a practice of ten or fifteen years.

I heard a prominent practitioner not long since relate his experience with the lancet, which I think is too good to be lost. He said some ten years ago he had a case of chronic eczema which he was very anxious to cure. He gave him all the approved remedies. But the stubborn disease resisted all the treatment he could suggest. So he requested a consultation. An old physician was called for counsel, and after giving the old gentleman a history of the case and the remedies he had tried—which nearly exhausted the *materia medica*—the old gentleman remarked he thought the disease was caused by derangement of the *prima via*, and as all other remedies had been tried he would recommend blood-letting. The patient was bled, and he made a rapid and complete recovery—most unexpected result. "Well," said the Doctor, "I began to think there might be something in this 'bleeding business,' so I bought myself a lancet and waited for a case. It came in the form of acute pneumonia. I bled freely, and my patient died promptly. I laid away my lance, and I have never used it since," remarking he had no faith in a remedy which produced such unexplainable and unexpected results. If it cured the case of chronic eczema, I think it killed the case of pneumonia.

Prof Charles D. Meigs says in his work published in 1842, called "Philadelphia Practice," that he has met with seventeen cases of eclampsia. Few were first pregnancies. He says "If there be a case of disease in which a bold and daring use of the lance is demanded, it is the case of the puerperal convulsion." He says "The patient should lose from 30 to 60 ounces of blood at one venesection."

Dr Ramsbotham says in his work on obstetrics, published in 1859 "Bleeding is our great reliance. The lancet is our sheet anchor." All authors up to about this period agree with the two distinguished authors above quoted, and indeed every practitioner who had any claims to possessing a respectable knowledge of his profession looked upon venesection as the "*sine qua non*" in the treatment of this disease.

Now, I think I hear you laugh, and sneer, and say, "This is old-fogysm—behind the times." Well, I will admit that in the last twenty years there has been great advancement in the science of medicine. New lights have sprung up in the profession. Scientific men, with the aid of the microscope, have seen wonderful things, and by chemical analysis have demonstrated to the profession that "uræmic poison" is the cause of all the convulsions that the parturient woman is heir to. And upon this hypothesis quite a revolution has taken place. The American profession

especially have discarded the lance, and passed over to the new theory en-masse, and every pregnant female, who is suspected of furnishing a case of convulsions for the doctor, is requested to furnish a bottle of urine for examination and test. Albumen found is the harbinger of danger, and the physician is alarmed and anxious for the safety of his patient.

This brings to my mind a case I had some few years ago. I was called to attend a young lady in her first confinement. On entering her room I was struck with her appearance—face bloated so she could hardly see, complexion sallow, feet and hands swollen. I knew her when she was a girl, and I could not recognize her to be the same person. I inquired, "Have you any headache?"

"Yes, Doctor, I suffer a great deal with my head."

"Can you make much water?"

"No, not as much as I ought to make."

I made an examination, and found labor just commencing, which caused me to breathe a little easier. As I wanted time to prepare myself for the struggle, as I felt certain I was going to have a case of convulsions, I procured a bottle of her urine and went to my office. I applied the test, and found it highly albuminous. I was now fully convinced. I prepared myself with chloroform, hyd of chloral, forceps, hypodermic syringe, etc., and awaited the call, which came the same night. On my arrival I found her in hard labor. Every time she turned up her eyes I thought sure she was going off in a convulsion, which made me anxious for her speedy delivery. I dare not bleed, for if I did and my patient died, and I was prosecuted for malpractice, the profession would not sustain me. They would swear she died from exhaustion from the loss of blood produced by the lance, so I resorted to the next best thing—speedy delivery, for all agree that if the woman was not pregnant she would have no convulsions.

Consequently with great difficulty I delivered with forceps a 12-lb boy. Head squeezed, neck stretched, scalp bruised and tumefied, and to all appearance a dead child. But after some effort to resuscitate, I succeeded, but the child worked in convulsions for two days, caused, I have no doubt, by the abuse it received in hurrying it into the world. The mother got along without a bad symptom, on third day sat up in bed, washed and dressed her boy, and the fifth day I found her seated in a rocking chair, bright, cheerful and happy. In this case, I got the convulsions in the wrong patient.

Dr Playfair, in his late work of 1880, says, in speaking of the cause of eclampsia in pregnant women, "that in the more recent investigations as to the cause of death in this disease, the tendency of the profession for the last ten years is back to venesection." The rule is to bleed the patient as early as possible, so as to make a decided impression."

"As time elapses," says the same author, "the evidence accumulates to show that the relation between albuminuria and eclampsia in pregnant women is not so universal as formerly supposed, that albuminuria is by no means necessarily accompanied by eclampsia. Cases are all the while occurring in which

pears after the convulsions, the convulsions causing the nephritis "

It is also an established fact that convulsive attacks are common in pregnant women when there are no traces of albumen found in the urine

The same author says "The key to the liability of pregnant women to convulsive attacks, is no doubt found in the peculiar excitability of the nervous system in pregnancy, a fact which was clearly pointed out by Dr Tyler Smith and by many other authors. The nervous system is in this respect not unlike that of children, in whom the predominant influence and great excitability of the nervous system are well established facts, and in whom precisely similar convulsions are of common occurrence on the application of a sufficient exciting cause "

And who, I ask, would think of referring the eclampsia of childhood to "uræmic poison" as a cause?

Whatever may be the pathological condition of the blood, incident to the pregnant state, whatever may be the cause which excites the nervous system to morbid action, whether it be a toxæmic condition, or a watery condition associated or not with albuminuria, in either case says Drs Franke and Rosenstein "There is increased tension of the arterial system, which is produced by the hypertrophy of the heart, which is known to be a normal occurrence in pregnancy "

Such being the case, does it not stand to reason and common sense, which by the way are always associated, that venesection, as a remedy, stands first on the list, to relieve arterial tension, and the congested nervous center, by unloading the blood-vessels and subduing the heart's action

But modern theuputists tell us "we can do that without the lance, which is barbarous in its application. We have veratrum viride, aconite, etc, powerful sedatives to the heart's action

But the *muschief* will be done before you get the action of your drug "Well, we have our hypodermic syringe loaded with morphia guarded by atropia, which acts quick and powerful " So it does upon the brain, but not upon the heart

Where is the practitioner of experience who has not seen a narcotized patient, in which the heart's action was going on regular full and strong, but the brain overwhelmed, respiration ceased when it was very difficult to tell just when the patient died?

Opium, like chloroform, sometimes causes death from an ordinary dose judiciously administered—venesection never, to my knowledge. No one in these days of therapeutic knowledge would advocate the use of the lancet to the exclusion of other remedies. Chloroform, hyd chloral, bromide of potash, etc, are all right and proper in their place and at the right time, and I should feel as if I had not done my whole duty should I fail to employ them, but I assert here that the practitioner who would stand by the bed-side of a parturient patient having convulsions or the premonitory symptoms of eclampsia, having pain in the head, double or half vision, swollen hands and feet, with turned eye-lids, with a full and bounding pulse, and he failed to extract blood freely and the patient died, and he was prosecuted for malpractice, were I

on the jury I would vote for conviction, albumen or no albumen in the urine, and nothing but Bright's disease of the kidneys, in her case being a well-established fact, would cause me to recommend him to the mercy of the court

It is time medical men should think and be actuated by common sense, and not ride the hobbies of others all their life. I would rather have "three ounces of common sense," exercised at the bedside of a patient, than "ten pounds of finely-spun theory." The former makes a man act wise—the latter makes a man appear wise, but it is argued that the remedy was abused, every person who was sick was bled. Admitting this to be true, it is no argument why it should be abandoned altogether, and not used in its proper place

Do not the present generation of doctors abuse their patients by their "anti-exhaustive treatment," and by their stimulating, brandy and milk course do more harm than ever the lance did? Why, thousands of patients at the present day, after a protracted illness, come out of the hands of the doctor confirmed inebriates, fit only for bar-room loafers

Women in former days were bled for headache, backache, pains real or imaginary, and they grew fat, raised large families of healthy children, and lived to a ripe old age

But in our day the hypodermic syringe has taken the place of the lance, and for their pains and aches they are chucked full of morphia daily. Sensibility deadened, nervous system unstrung, muscular system relaxed, and they become fit subjects of abortion or premature labor. Their children dwarfed and they die at a premature age

Would it not be better if we would follow more the teachings of nature on this subject? Why, one half of the human family, and the best half at that, by a fixed law of nature, which is God's law, lose from six to ten ounces of blood monthly, and continue to average so for 30 years, being bled not less than 360 to 400 times in their life, for what purpose? To carry off the surplus blood, like a safety valve, to relieve their congested organs

And yet if a man has double pneumonia, lungs congested and pressed upon with a pressure of 100 pounds to the square inch, breathing 60 times to the minute, you are afraid to take a pint of blood from him for fear he dies from exhaustion and you chuck him full of quinine, iron, brandy and milk to support him, and morphia to relieve his pain, and your man dies and you console yourself by the reflection that you gave him the best chance for his life by using the latest and best treatment approved by the profession

I have, in a continuous practice of over 35 years met with some cases of pneumonia, and I never had a case of primary inflammation of the lung in the adult but I bled freely in the congestive stage, and although I say it myself, it was very rarely that they did not recover rapidly after one or two decided venesections

I had an attack myself in the spring of 1858 of acute pneumonia of the left lung. I was bled twice from the arm, cupped and blistered, and I made a speedy

and good recovery I can remember what a load was taken off my chest at the first bleeding, how the pain ceased, and how easily I breathed, and with a full dose of morphia how well I slept that night. In the last few years, since bleeding as a remedy has been abandoned, nearly all the cases I have seen have been in consultation with other physicians, and the great majority of them were very bad subjects, men who were broken down by strong drink. I saw them in the advanced stage, when the time for bleeding had gone by, if at all admissible in such subjects—seven in number. They all died promptly, full of morphia, quinine, iron, brandy and milk.

Dr John L. Atlee, our retiring president, in his address to the members of the American Medical Association, at Cleveland, June 5, last, said: "I feel well assured that the almost total disuse of the lance has cost many valuable lives. From a very large experience in its use I am satisfied, *fully satisfied*, that if we depended more on the early use of the lance, in the congestive and inflammatory states of many diseases our practice would be made more successful than it now is. It is, in my opinion, a very important subject, and I feel assured that ere long the lancet will be more freely used than it is now." When I heard these words fall from his venerable lips, an old veteran in the profession brim full of knowledge and wisdom gathered from scientific researches and an experience of 60 years of active practice in the profession, although not a Methodist, I could scarcely restrain myself from shouting Amen!

Dr Davis, of Chicago, says there was during the year 1882, as per the census of 1880, one death in the city of Boston to every 532 of the population; 1 to every 579 in Chicago, 1 to every 441 in San Francisco, 1 to every 1,038 in New Orleans. He says sanitarians should investigate the cause, and suggest some means of checking this fearful mortality. Certainly this is good advice, and upon the principle that "an ounce of prevention is worth a pound of cure," it is well-timed. But I say to you, fellow practitioners, clean up your old rusty lancet, and you that have none buy one, carry it with you to the bedside of the sick, and when you meet an enemy so formidable as eclampsia or pneumonia, stand in the advance guard, strike with your lance one or two decisive blows in the onset of the conflict, and it will do more toward subduing the enemy than all the stimulating nourishing treatment of the present day. "Quit yourselves like men."

MEDICAL PROGRESS

THE PHYSIOLOGICAL EFFECTS OF COFFEE.—DR J. A. FOOT, of Rio de Janeiro (*Bull. Gen. de Therap.* June 30.) Dr Foot gives us the effects of a strong dose of coffee upon his own person after recording his condition for fifteen days of total abstinence from coffee, and follows his record of the effects of the strong dose, by noting the influence of two cups of coffee daily for twenty-five days. The most interesting part of his paper is his record of the effects of

the strong dose. At the time of taking it, his pulse was seventy-two in the morning, reaching eighty-four during the day. He made an infusion of over 3viij of coffee in a quart of boiling water, drinking the whole of it during the day from 7 A. M. to 9 P. M. During that day the pulse increased in rapidity to 108 in the afternoon, in the evening it reached 114. He went to bed at 11 P. M., but could not sleep, reflex contractions were produced in nearly every part of the body alternately. Very painful cramps in the thighs, legs, feet, walls of the thorax and in the muscles of the hyoid region. These cramps persisted throughout the night but moderated in severity on the following morning. The tongue was dry and there was a certain degree of constriction in the chest. At the same time there were frequent cramps in the stomach accompanied with nausea. The intestines were the seat of frequent borborygmus, and of an abundant liquid secretion which produced eighteen evacuations. The pulse kept between 110 and 112 through the night. It was intermittent, as was the heart's action, losing one pulsation to every four. The next day the pulse was seventy-six, there was headach and no appetite.

In this experiment, then, the coffee acted on the organs and functions of the central cerebro-spinal system, producing insomnia by exciting the brain, producing the cramps in the muscles, pains in the stomach, disturbance of the intestine and of the heart by exciting the spinal cord, an excitation of the reflex force or excitomotor. He considers that this irritation affects equally the spinal roots of the sympathetic, and in paralyzing the vaso motor nerves. In this way explanation is given of the cause of the excessive secretion from the intestine and of the abolition of sexual power.

His other experiments with moderate doses, prove to his satisfaction, that the use of coffee does not prevent advanced age and the preservation of good health, and that life seems to be prolonged in the countries where coffee is much used.

AMAUROSIS FROM TUMOR IN THE NASAL CAVITY CURED BY REMOVAL OF THE TUMOR. PRIESLEY SMITH (*Ophthalmic Review*, June, 1883).—The salient points in the case detailed are that a morbid growth in the nasal cavity caused impairment of sight in both eyes, unaccompanied for a long while by any visible changes in the optic disks, and that the removal of the growth was followed by complete and permanent restoration of sight in one eye. There can be little doubt that the tumor was a non-malignant growth of some kind, as it was completely removed, and there was no recurrence at the end of six years. The seat of the pressure is inferred from the symptoms to have been in front of the optic commissure—for there was no hemiopia, one eye being blinded completely and the other recovered with an entire visual field. It was not within the orbital cavities, for there was no proptosis and no sign of pressure upon the nerves or blood-vessels which enter the orbit in the neighborhood of the optic nerve. There must have been an invasion of the sphenoid cells by the tumor with a destruction of the septum,

so as to exercise pressure upon both the optic nerves in the optic foramina without affecting an entrance either into the orbits or the cranial cavity

EXPERIMENTAL RESEARCHES UPON THE STRUCTURE OF THE OLFACTORY MEMBRANE *Christmas, Durehunk Holmfeld (Nordiskt Medicinskt Arkiv Bd XV, No 7 Comptes-Rendus)*—The section and destruction of the olfactory bulbs causes a destruction of the olfactory cells in the olfactory mucus membrane, whilst the epithelial cells are either not affected, or only after several months. The modification of the olfactory cells consists in a fatty degeneration and a decomposition into molecular granules. This process is more rapid in the warm than in the cold-blooded animals, the changes appearing in the first at the end of fifteen days. In about a month the protoplasm of the cell is filled with fat granules. In four or five months the epithelial cells commence also to degenerate, probably because their function, which is dependent upon the olfactory cells, has been arrested. In the cold-blooded animals the process of degeneration begins at the end of a month, and it is during the second month that the degeneration becomes complete, with no change in the epithelial cells. This would establish the facts

- 1 That the olfactory cells should be regarded as the true termination of the olfactory nerves
- 2 That the epithelial cells cannot be in direct communication with the olfactory nerves
- 3 That the definition given by Max Schultz of the organization of the olfactory membrane is correct, and that the observations of M. Exner are incorrect

COMPLETE PROGRESSIVE HEMIATROPHY S E HENSHEN, *Nordiskt Medicinskt Arkiv, Bd XV, No 7 Comptes-rendus*) The patient was 46 years of age. No nervous affection in the family, with the exception of a cousin who suffered from melancholia. Enjoyed good health up to 14 years, then suffered from a slight sprain of the left foot, followed soon after by erysipelas of the left leg, which was followed in turn by ulcers upon the legs that healed at intervals. Since that time he suffered from pricking and shooting pains in the left half of the body. Six months later, modifications in the extremities and trunk were noted, and six months later still the face was affected. From that time onwards these modifications have become more and more marked. At that period he suffered from very painful headaches. At 19 years of age he was affected with melancholia for a time, after which he enjoyed perfect health. Too years and a half later the melancholia returned. Married at 40. He became the father of a healthy and well-made child.

He has strong limbs and an excellent embonpoint. The left side of the face is sensibly depressed, and as if diminished in size. The cranium above the eyebrows is well formed and symmetrical, with the exception that the left temporal fossa is deeper than the right. Below the eye-brows the face has a marked want of symmetry, the left side being very visibly

smaller than the right. The nose looks as if it were pressed upon from the left, the left cheek is deeply sunken, deprived of fat and marked by radiating wrinkles, the eye is deeply sunken, but sound in other respects. The eyelids have no fat. The left zygoma is atrophied. The skin of the left side is very thin and pigmented. The left superior and inferior maxillæ are markedly atrophied. The teeth have dropped out. The alveolar process of the left superior maxillary is wanting behind the second buccal tooth. The raphe of the palate inclines to the left, the soft palate is partially atrophied on the left. The whole of the right side of the face is healthy, with an abundance of fat.

The neck is symmetrical, the whole of the left side of the neck is a little smaller than the right, but there are three portions which are markedly atrophied—first, between the fifth and seventh intercostal spaces, second, in the umbilical region, between the tenth and eleventh dorsal vertebræ, and third, at the crest of the left iliac bone, including the left natis and extending through a line drawn from the superior anterior spine of the ilium and the trochanter. Over all these parts the skin is as thin as paper, markedly pigmented, and the subcutaneous fat so nearly absent that the atrophied muscle fibers are clearly defined, and there is a consequent depression of the parts. The left arm is atrophied throughout, and shorter than the right, the muscles very much atrophied, particularly the long head of the triceps, which has almost entirely disappeared and is replaced by a tendon of a few millimeters in thickness. The elbow joint and the fingers of the left hand cannot be completely extended, on account of the changes which the articulations have undergone. The right arm is strong and muscular, with an abundance of fatty tissue. The left leg has lost nearly all of its adipose tissue, the leg cannot be extended at the knee, in consequence of changes at the joint, the muscles are greatly atrophied, especially the quadriceps, in which are two ossifications. The whole inferior portion of the leg forms a cylinder of a nearly uniform thickness, giving a circumference of 19.5 to 16.5 cm, in comparison with the right leg of 38 to 24 cm. The muscles have nearly disappeared, and over the bones the parchment-like skin is closely adherent in part, of an ivory whiteness and in part pigmented. The skin is wanting in hair and sudoriporous glands. Ankylosis of the tibio-tarsal articulation.

Tactile sensibility has undergone no change. The left leg is more sensible to cold and to electric irritation. The patient suffers in the parts attacked from frequent fibrillary spasms, contractions, etc. There is nothing remarkable about the internal organs.

TREATMENT BY ARSENIC OF LEUCÆMIA, PSEUDO-LEUCÆMIA AND OF PROGRESSIVE PERNICIOUS ANÆMIA, ETC. F W WARRINGE (*Nordiskt Medicinskt Arkiv Bd XIV, No 7, Comptes rendus*)—During the four years that the hospital of Sabbatsberg, at Stockholm, has been open, two cases of leucæmia, seven cases of pseudo-leucæmia and seven cases of anæmia have been treated with arsenic

by Warrange with favorable results. After giving the comparative details in each case, which we omit here, the writer considers them as of a common origin, and passes in review the principal symptoms and the alterations in their pathological anatomy, dwelling principally upon the modifications in the blood. Whilst these cases present quite marked differences in the quality of the blood, they present a characteristic in common in the diminution, in number of the red globules, which is due to an abnormal destruction. He sees in this modification of the blood the primary alteration, regarding as secondary alterations by dyeratic irritation, as much the modification of the cord, as the hypertrophy of the lymphatic glands and spleen, and the lymphatic heterotopic neoplasms.

As to the alteration in the cord, so well recognized in the leucæmia, the writer has found it in all the cases of pseudo-leucæmia and pernicious anæmia where an autopsy has been held, and he considers it as common to the three affections. They have also in common the anæmia with the cachexia, the disposition to hæmorrhages, particularly of the retina, to oedema and to transudations, as well as to fatty degenerations of the different organs, particularly the heart. These diseases are identical in their onset, their progression and their mortal termination, if proper treatment does not intervene. They possess in common a marked tendency to relapse. Moreover, they are all three equally free from any appreciable cause. In this respect the author observes that they sometimes run an acute course, and that then they bear certain resemblances to acute infectious diseases, that when they are more chronic their onset and course are often of a nature to reach also infectious diseases. It is probable then, he says, that we have to deal with specific infectious diseases, or rather with a disease of that character, presenting itself under different forms.

ON THE USE OF POWDERED BEEF'S BLOOD IN ALIMENTATION—Blood exercises a stimulating action upon the digestive organs and upon the whole organism. This may be due to its extractive matters, to its salts, or to the iron which it contains. It is generally considered to be difficult of digestion, but this may be due to the fatty substances which are so commonly taken with it. Dr Guerder has administered his preparation to 51 persons, 44 continued its use for several weeks without suffering any inconvenience, 3 vomited it immediately, and 4 digested it with difficulty, suffering from a sense of weight in the stomach, from eructations, and some hours later discharged it undigested. The 3 were convalescents from typhoid fever, the 4 were chlorotic. The taste of the blood, without being positively disagreeable, is unpleasant to many persons, and can be disguised by the addition of aromatic powders to suit the individual. It does not do to give more than a certain quantity. The writer gives, three times daily, to children, 7 to 8 grammes to adults, 20 to 25 grammes. These doses are generally well tolerated and suffice for a rapid reconstitution of the organism. Seventy to 75 grammes of the powder are equivalent to 500 grammes of fresh blood.

The preparation of the powder of blood requires great care. Dr Guerder employs only the blood of the beef, for the blood of the sheep gives a disagreeable odor. The blood is taken very fresh, difibrinated, evaporated 4 to 5 hours, and dried slowly in a current of warm air at a temperature of 40 to 42° C (104 to 113° F). The preparation takes a long time, at least three days, and can be done quicker by compressing the pasty mass of evaporated blood in linen, but then the risk is run of removing the soluble portions which contain principally the saline matters—the presence of which play an important part in the dissolution and digestion of albuminous substances. The dried blood now presents itself in a lumpy form, and is reduced to a powder by means of the pestle. It is then again placed on the stove to remove every trace of humidity. It may be questioned if the pulverizing by means of the pestle may not act upon the albuminoid matters of the blood so as to diminish their solubility, but the powder produced dissolves more readily than the mass, and there seems to be no difference in their digestibility. The blood powder may be given at meal time, and, by preference, in some cold liquid, as water, wine, milk, or black coffee. To children it may be given in syrup. Heat develops its peculiar taste and renders it more difficult of absorption.—DR GUERDER, *Bull. Gen. de Therapeutique*, May 30, 1883.

THE TOXIC PROPERTIES OF NITRO-GLYCERINE AND OF DYNAMITE DR BROWN (*Bull. Gen. de Therapeutique*, May 30, 1883)—Prof Brown in 1877 was physician to a foundry where cannon were made, and hearing the officers of artillery complain of the violent headaches which resulted from the handling of dynamite, resolved to make certain experiments upon himself.

1st He kept the contents of a cartridge, 100 grammes, upon his work-table for several days, agitating them constantly with a paper-cutter. No effect, showing an absence of all danger of absorption in the form of vapor or fine dust.

2nd He kneaded a small pinch of dynamite in the hollow of his hand for five minutes. Almost immediately he felt a slight painful numbness along the radial nerve from the base of the thumb to the middle portion of the forearm. Two hours later, tension over the forehead and maxillary tissues, with a ringing in the head, like the commencement of a coïza.

3rd He rolled a pinch of dynamite between the thumb and index-finger for a quarter of an hour. A half hour later there was painful sense of tension in the sinus of the nasal fosse and in the forehead. All day, this being tried at 8 30 A M, there was a feeling of slight headache. At 4 P M, on going out into the air, this passed off.

4th For a quarter of an hour rubbing with force in the palm of the hand a small quantity of dynamite. In ten minutes strong tension in the temporal and parietal regions, pain in the forehead, heat of face, painful arterial pulsation in the neck and at the temples, slight nausea, slight giddiness. This

was tried at 2 30 P M, and some of the symptoms persisted until bedtime

5th At 2 30 P M placed a piece of dynamite on the tip of the tongue, of the size of a small lentil. At first, the taste was sweet, then agreeably acid, and finally burning. He then spit it out, having taken care not to swallow, and got up to wash out the mouth with water, when he was taken with a vertigo which obliged him to hold on to the furniture. The occiput was the seat of a heavy pain, the skull seemed to dilate until it would split open, the heart beat violently and rapidly, the arteries of the neck and temples were distended and beat with excessive violence. There was anxious respiration and slight nausea. He was obliged to make an effort to analyze his sensations and transcribe them. No disorder of urine.

In five minutes cephalic and cervical tension diminished. Pulse 80 and irregular. In a half hour no symptoms other than the cephalic, in an hour nausea on walking, frontal cephalgia, weakness, fatigue and constant yawning. That evening he dined out in company, drank several glasses of different kinds of wine and a cup of coffee, which seemed to remove all the symptoms. The next day he felt a disturbance in the head, and the need of quiet, rest and sleep.

PALATABLE DRUGS FOR CHILDREN—Dr Frederick Churchill has an article on this subject in the *British Medical Journal*, for June, 1883, a consideration of which, although the matter in itself is not new, may be of use in reminding us that we can make medicine agreeable, and despoil our homœopathic neighbors of some of their success. Thus, as the ailments under which children for the most part suffer are due to over-feeding and to neglect of the calls of nature, in treating habitual torpidity of the bowels the best method is not medicine, but an enema of soap and water, with occasionally a little castor or olive oil added to the injection. This failing, we fall back upon castor oil, administered internally. Fortunately, we are enabled to give it absolutely free from taste or smell, while it retains its full aperient properties. Shaken up with three or four times its bulk of hot milk, the viscosity of the oil is avoided, and the emulsion produced is scarcely distinguishable from warm rich milk. In giving a compound rhubarb pill, an ordinary five grain pill can be cut up and broken into pieces, which are buried in a chocolate cream. The medicated fruit lozenges are very useful, as tamarindien, which probably contains podophyllin, and of which only a small portion must be given to a child. The compound liquorice powder, containing senna powder, may be given by the teaspoonful, stirred up with warm milk at bed-time, and a little chloric ether added (10 to 20 drops). Fluid magnesia or calcined magnesia, flavored with syrup of orange, is generally acceptable. Rhubarb mixed with bicarbonate of soda, each five grains, is easily given in jam or honey. Decoction of aloes rubbed on the stomach of an infant, will sometimes suffice to procure an action of the bowels, in giving it internally, the extract of liquorice will mask its bitter taste. This bitter is not objectionable to children, for Dr Churchill notes that they sometimes

lick off the aloes from their fingers, when put on to prevent them from sucking them. Powdered aloes, about half a teaspoonful may be given, mixed with brown sugar. The electuary of senna is taken without difficulty, also the syrup of senna, and the infusion with prunes. The effervescing purgative lemonade is a very agreeable drink, as also half a seidlitz powder flavored with lemon juice.

The febrifuges are generally pleasant to take, and the aromatic syrups form agreeable adjuncts. Cough mixtures are made pleasant by the addition of syrup of squills, and of tolu. In tonics the bitter flavor must be disguised. The saccharated carbonate of iron and steel wine are taken very well. Quinine is well disguised in syrup of orange.

THE USE OF AMMONIATED CHLOROFORM (*Lancet*, June 9, 1883)—Dr B W Richardson successfully used as far back as 1853 a combination of the vapors of chloroform and of ammonia in the so called phagedenic croup where there was a refusal to swallow medicinal doses of ammonia, he produced a gentle narcotism with the combined vapors, and was then able to increase the quantity of ammonia considerably. He kept up the inhalation for fourteen hours, administering food by enemata. In studying a theory that zymotic diseases ought to be controlled by inhalation, he found that each of these vapors in its separate state was a remarkable antiseptic, and that the two acted admirably in combination. Now he uses this combination in zymotic fevers, and it seems to promise valuable results. He takes an alcoholic solution of ammonia (838 alcohol saturated with ammonia) and mixes it in equal parts with chloroform or methylene bichloride, any separation of water is removed. Two fluid drachms are put into a small Wolff's bottle, which is connected with a leather inhaler armed with an expiratory valve. In a puerperal case free inhalations were used every two hours for three days without the slightest discomfort and with obvious direct advantage. The effects of the inhalation seem to extend in four directions. First, under the sedative action of the narcotic relief from pain is obtained, and repose, if not actual sleep, is secured. Second, under the combined influence of the vapors there is reduction of temperature. Third, under the influence of the ammonia there is a sustained fluidity of the blood and a production of freedom of secretion. Fourth, under the action of the combined vapors there is an antiseptic result which is always favorable.

ORCHITIS, WITH SLOUGH OF A PORTION OF THE TESTICLE, FOLLOWING TYPHOID FEVER—Mr C E Harrison, *Lancet*, June 9, 1883, describes a case of this rare sequela of yellow fever, coming on seven weeks after the onset of the fever, where the slough reached the size of an almond, separated, and the wound healed completely.

DEATH FROM AIR IN THE VEINS AFTER PARTURITION (*Lancet*, June 9, 1883)—Hindo woman admitted to Kaira Gaol Hospital, under the care of Surgeon Davidson, Indian medical service, natural

labor, female child, head presentation, placenta came away at usual time, no post partum hæmorrhage. About three-quarters of an hour afterwards the woman died, without any ostensible cause, no hæmorrhage, no convulsions. She had been taking some nourishment, when she suddenly fell back and died. Post-mortem two hours after death, uterus empty, with large and somewhat distended veins, right side of heart contained a quantity of air mixed and churned up with blood, and which escaped in bubbles, lungs congested, all the other organs were normal.

MILK IN THE MALE BREAST C. H. VON KLEIN, A. M., M. D. (*Cincinnati Lancet and Clinic*, June 30) — There have been several articles in the medical press recently giving cases of the secretion of milk in the breasts of the virgin and other females where pregnancy did not precede it. Dr. Von Klein adds his quota by giving two cases where milk was secreted in the male breast. The first was in a man aged 41, fine physique, height 5 feet eight inches, weight 190 pounds, suffering from hydrocele. The flow of milk was induced from attempts to quiet a restless infant by introducing the nipple into its mouth. After several weeks had elapsed the breast became larger and harder, and the milk began to flow in sufficient quantity to nourish the child, and this was kept up for five months, when it was stopped from the intense pain felt in the testicles—a crawling sensation. The testicles eventually atrophied and disappeared entirely, the patient enjoying good health, meanwhile having been cured of his hydrocele by an operation. The second case was one simply of observation of a Russian peasant nursing a child, and occurred during the Turco-Russian war, with no special details.

THE COLLECTIVE INVESTIGATION MOVEMENT — The *British Medical Journal*, for July 7, devotes an editorial to this subject, in which it congratulates itself that the work has already been taken up by the medical profession in Germany and in America. At a meeting of a leading Berlin medical society (Verein für Innere Medizin), held on May 21, the President, Professor Leyden, submitted a report drawn up by Dr. Frantzel and himself upon the subject of a collective investigation, and suggested that an inquiry should be instituted concerning phthisis, of a very elaborate and exhaustive nature, including its hereditary transmission, the sanitary and other conditions under which it occurs, its connection with disease in the lower animals, its contagiousness, its curability, and its relation, if any, to acute pneumonia. In commenting on this, the editor gives as the chief aim of the collective investigation, as applied to the main body of the profession, the collecting of simple, every day facts, that can be easily observed and recorded, and which are of value only from their number, and not from the importance of individual observations. The questions suggested for the profession in Germany are of a more intricate and difficult character, so that the value of each observation must be judged by the skill of the observer. The movement in this country, as brought forward by Dr. Billings in the Association, is evidently looked upon with

much interest. In Great Britain a wide area is already covered, not only in the British Isles, but in Australia, in India, in Jamaica, in Egypt, and in all parts where the British army and navy medical officer is sent. Among those officers alone are over 400 observers. In Australia there are 240 members.

A TUMOR OF HAIR REMOVED FROM THE STOMACH OF A YOUNG GIRL BY GASTROTOMY — Von Schonborn (*Pester Med. Chir. Presse*, 1883) — A fifteen-year-old somewhat anæmic and nervous girl, who since her tenth year had suffered considerably from chlorotic troubles, which for the last three years were associated with acute indigestion, for the last year and a half an extremely movable tumor was noticed in the abdominal cavity, which was by some taken for a movable kidney, notwithstanding the fact that some of the symptoms were not in accord with the diagnosis. The pains finally became so severe that laparotomy was performed, when the tumor in the stomach was found to be made up of short hairs, mixed with vegetable cells, starch grains, etc. It weighed 283 grm., and was $13\frac{1}{2}$ cm long, $10\frac{1}{2}$ cm broad, and $5\frac{1}{2}$ cm thick. The tumor was compact, and superficially very black. The result of the operation was complete relief. The patient acknowledged that for the past four years she had been in the habit of biting off the end of her hairs and swallowing them. The majority of her schoolmates did the same, believing it would give them clear voices. The reporter finds seven similar cases in the literature of the subject, and one case where a malignant tumor of the stomach and intestines proceeded from this cause.

ON THE TREATMENT OF SPINAL CURVATURE BY RECLINATION IN ITS EARLY STAGES — Mr. Edward Lund, F.R.C.S., Professor of Surgery in the Owen's College, Victoria University, Manchester, writes:

"I hope to exhibit at the forthcoming meeting of the British Medical Association at Liverpool, a form of couch for the treatment, by reclination, of spinal curvature in its early stage, and weakness of the muscles of the spine, which embodies in its action a principle of treatment for such cases too frequently overlooked.

"The couch which I have to recommend, and which will be shown at Liverpool, is designed to carry out by reclination the same principle of treatment as operates in the method of vertical suspension, only in a more gradual and prolonged manner. I have called my couch the 'slippery couch,' and I think the construction and mode of action will justify the term. I have used it with marked benefit during the last few years, in more than thirty cases, in private practice. It is made in this way: A piece of wood is prepared, of suitable thickness, and about six feet long and eighteen inches wide. At about four inches from one end, a hole is cut through the wood, of circular form and six inches in diameter, with its margin on one surface of the wood slightly bevelled inwards. This end of the surface of the wood is to be the upper or higher part, when it is fixed at such an inclination by means of a block, so as to raise it."

well to have four wooden legs screwed on, one at each corner, the upper pair being longer than the lower in the same proportion, and to still further influence the angle at which the couch is to be used, by means of extra screw holes in the wood, the longer pair of legs being brought nearer to the foot of the couch, a greater elevation can be secured. The flat piece of wood being so prepared, is covered with several folds of soft thick blanket to about two inches in thickness, the blanket being just the size of the wood, on one surface only, over this a piece of well polished black horse-hair cloth is stretched, and being turned tightly over the edges of the board, is nailed underneath, so as to produce a smooth, somewhat soft, but yet slippery, almost polished surface. Where the blanket crosses over the hole already described, it must be cut across in two directions, longitudinally and transversely, and the horse-hair cloth should be left loose over the same spot, so that, if pressure be here applied, an indentation will be quickly made.

"Now, if a couch be prepared in this way, and placed at such an angle of elevation as I have here described, about one part in six of its length, a person lying upon it on his back will soon find, unless he make some effort to resist, that he will quietly slide down toward the lower end of the couch, and if his attention is otherwise absorbed, he will have his feet over the end of the board, as he is sliding beyond it. By a very simple device this tendency to slide or slip downwards may be very beneficially utilized for the object we have in view.

"A small, firm, cylindrical pillow is prepared, about the diameter of the wrist, and a foot in length, and this is attached by strong tapes, one at each end of the pillow, and fixed to each upper corner of the couch, the length of the tapes being such as to place the pillow transversely on the board immediately below the lower edge of the hole in the wood. With this pillow in position, and the patient so placed that the pillow may be received into the recess of the nape of the neck, the projection of the occiput falling into the depression made by the hole in the wood, the body is retained in position, and the sliding down is prevented, but yet there is a constant gentle dragging action on the spinal joints from the weight of the pelvis and lower limbs, which will act most favorable in the required direction.

"It is desirable, when a patient uses this couch for the first time, that he should try it without the pillow, and, if needful, the elevation of the couch should be adjusted until the peculiar sliding movement is experienced. Then, with the help of the pillow, and the back of the head falling into the recess prepared for it, the patient will be aware of the principle upon which the couch is intended to act, and be more likely to continue its use.

"All other couches, such as the Ilkley couch, and couches with a double angular bend to support the knees, or with a foot-piece against which the feet can rest, are entirely opposed in principle to the plan of this 'slippery couch.' Using them, the patient may feel rested and experience some temporary relief, but I know of no way, by reclinacion, to secure a certain degree of spinal extension, better than to fix

the upper segment of the vertebro cranial axis at one spot, and allow the weight of the lower part to induce direct 'self-extension'."—*British Medical Journal*

THE RISKS OF "MASSAGE"—Dr Julius Althaus, M.D., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, deprecates the abuse of massage, a practice often now employed where it can be of no service. "It is well known that at various times epilepsy, idiocy, and some forms of insanity, have been treated by massage and gymnastics, but, fortunately, we now hear very little of such therapeutical aberrations.

"It appears to me that diseases of the brain and spinal cord must, on account of the anatomical situation of these organs, be inaccessible to the influence of massage, which can only be applicable to more superficial parts of the body. Apart from this, however, it is important to consider that many of the most important diseases of these organs are of an inflammatory or irritant character, either primarily or secondarily, and this should make it self-evident that massage should not be used for their treatment, even if the suffering parts could be reached by it. I will here only allude to many forms of cerebral paralysis from hæmorrhage, embolism, and thrombosis, which are followed by sclerosing myelitis of the pyramidal strands, and most forms of primary lateral, posterior, or insular sclerosis of the spinal cord.

That which may be good for developing and strengthening healthy muscles, or muscles which have been enfeebled by disuse or certain local morbid conditions, etc., is not for that reason suitable for the treatment of muscular paralysis owing to central disease. In most cases of lateral and insular sclerosis, which are, unfortunately, now much treated with massage and exercises, rest is indicated rather than active exertion, and overstraining of the enfeebled muscles acts prejudicially on the state of the nervous centers. I have recently seen quite a number of instances in which the central disease had been rendered palpably worse by procedures of this kind, and, in a case of cerebral paralysis which was some time ago under my care, the patient had, after four such sittings, been seized with collapse, which nearly carried him off."—*British Medical Journal*

THE INFLUENCE OF CALOMEL ON DIGESTION.—Dr Vassilieff has found, from experiment, that the presence of calomel, at least up to the amount of five grammes, in the alimentary canal, does not interfere with the gastric juice, nor affect the triple influence of the pancreatic fluid on albumen, fat, and starch. Calomel prevents all other changes in nutritious substances, save those produced entirely by the digestive secretions, decomposition and retrogressive processes in albumens being entirely checked. Calomel also prevents butyric acid fermentation, as Vassilieff found by experiments on cheese. The action of calomel readily explains the cause of the green color of feces passed by patients to whom that drug has been administered. Hoppe Sezler rightly attributed this coloration to the presence of unaltered bile. These researches are described at length by Dr Vassilieff in the *Zeitschrift für Physiologische Chemie*, vol. vi, page

112 He has found that this drug prevents the development of micro organisms in the digestive fluids, and also destroys any bacteria and micrococci already developed — *British Medical Journal*, July 7

ACUTE GOITRE — Surgeon Major Gore, *Edinburgh Medical Journal*, records thirty cases of cure of this disease among the soldiers of a native Indian regiment, by biniodide of mercury, rubbed in for ten minutes or more, as the patient sat with the enlarged gland exposed to the sun or a strong fire. In some of the cases the swelling had been observed for about ten days before treatment. Only one case was any length of time in hospital, viz 79 days, in anæmic man, aged 22. The average duration of the treatment was 22.6 days.

DRAINAGE OF THE UTERUS — Dr Schwartz considers that the uterus, when affected by a catarrh of the mucous membrane, is in a condition to produce collections of purulent material, the ready relief of which depends upon the rapidity and facility of its discharge. For the past three years he has attempted to establish a perfect drainage in uterine affections, at first employing rubber tubes, but without much benefit, he then used tubes of twisted glass, obtaining a freer and more fluid discharge, but it was always bloody. This was due partly to the thickness of the tube, and partly to a knot made at its inferior portion. Finally he used fine bundles of glass threads, perfectly smooth, with success. He begins his treatment with a very small drain, to determine the degree of uterine irritability, then increases its size as occasion demands, using a drain six to seven centimetres long. At its superior is a small knot, or it is simply curved to retain it in place — the lower portion is secured by a thread, so that the patient herself can remove it. The tube is introduced by means of a sound, after being covered with a fine layer of iodoform. The length of treatment depends upon the characteristics of the cervix and the results obtained. For mechanical dysmenorrhœa and endometritis, the drain remains for months, being changed every three or four weeks. In amenorrhœa, or insufficient menstruation, the drain is introduced a few days before the catamenial period and removed a few days subsequent to it. Dr Schwartz has found this method very useful in the catarrh consequent upon an incomplete retrocession of the uterus after a normal labor, or after abortion, the secretion generally increasing a little, becoming more fluid and disappearing after a few weeks. When the uterus does not return to its normal state it becomes much smaller and firmer. The treatment is painless, with the exception of slight colics — SCHWARTZ *Centralblatt für Gynækologie*, March 31, 1883.

MISCELLANEOUS ITEMS

Professor Virchow has been so much criticised by the Congress of German Physicians, for allowing a testimonial by him of a recent remedy, to be published, that he has withdrawn from the Society. The

proprietor of the pilulæ helveticæ sent specimens to Professor Virchow requesting him to try them. He was in need of something of the kind himself and accordingly gave them a trial. The result proved so satisfactory, that he wrote a note to the manufacturer stating the fact, but giving no permission to print it. Without authority from Professor Virchow, however, the letter was printed and very widely distributed. Virchow felt that under the circumstances, the remonstrances of the Congress were unwarranted, and consequently withdrew from it.

THE newly organized Medical Department of the University of Colorado, proposes to maintain a four years course of nine months each. This is a most excellent requirement, and we hope the University will fully maintain it. Another provision of the College we can not as heartily commend. The instruction is to be free and open to persons of either sex. Education of any kind beyond that of the common schools should not be free. A person who is unable to pay his own way while getting an education has not got life, energy and intellect sufficient to make him deserving of a broad, liberal education or worthy of a position in the ranks of professional men. The co education of the sexes in medicine has not proved successful elsewhere in this country, and it is doubtful whether it will be possible to maintain it in Colorado without difficulty.

WE noted sometime since, that the Professorship of Hygiene, in the John Hopkins' University, had been offered to Dr John S Billings, but, as was then suggested as probable, he has declined the offer, as according to the regulations of the army he could not retain his position in it and continue his work in the library of the Surgeon General's office, and at the same time hold a professorship in any college. Although not occupying the professorship, it is not improbable that he will lecture at least during the coming winter on that subject at the University.

A PRIZE of 5,000 francs has been announced for international competition, to be known as the Bufalini Prize. It is established according to the wishes of the late Bufalini, Minister of Public Instruction in Italy. The subject for 1883-4 is the "Application of the Experimental Methods to Science." The essays must be presented to the Secretary of the Medical Faculty of Florence before October, 1884.

THE Riberi prize of 20,000 lire has been awarded by the Royal Academy of Medicine, at Turin, to Prof Giulio Bizzozero, for the best essay on physiology of the blood.

DR LEOPOLD has become director of the Maternity hospital in Dresden, a position made vacant by the removal of Dr Winckel to Munich.

THE American Association for the Advancement of Science is now holding its meetings at Minneapolis, beginning August 14.

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1884

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THE Journal of the American Medical Association.

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, AUGUST 18, 1883

TRI-STATE MEDICAL SOCIETY—In regard to this Society we have received the following card from the officers, which will interest many of our readers in three States. We hope those interested will have a good and profitable meeting, and send us for publication all the good papers and reports that may be read. They can find no better medium for reaching the profession in all parts of the country.

The Tri State Medical Society will meet in English's Hall, at Indianapolis, on the 18th, 19th, and 20th of September, 1883, commencing at 9 A M. Excursion rates have been secured on the following railroads, C, C, C & I, Cincinnati, Indianapolis, St Louis & Chicago, Cincinnati, Wabash & Michigan, Indianapolis & St Louis, I, B & W, Wabash, St Louis & Pacific, Indianapolis & Vincennes, J M & I, Pittsburg, Cincinnati & St Louis, Vandahia, Evansville & Terre Haute, Ft Wayne, Cincinnati & Louisville.

Hotel Accommodations—The New Denison, Grand, Bates and Brunswick have reduced their rates for the occasion, and everything promises a very large attendance. Many papers of great interest will be presented. For further particulars address Thos B Harvey, M D, Indianapolis, Chairman of Committee of Arrangements.

G W BURTON, M D, Secretary,
WM PORTER, M D, President, Mitchell, Ind
St Louis, Mo

A SAFE ANÆSTHETIC—We find the following paragraph in the newspapers. It is very doubtful, however, whether any agent that is capable of producing

complete anæsthesia can be considered safe in all persons who may be in apparent health.

"Dr W K Mayo, a Boston dentist, is said to have discovered a new anæsthetic devoid of the serious defects of those in common use. Its inbreathing is agreeable and safe. It produces absolute insensibility to pain, long enough to permit the most delicate operations, preserves the pulse at its normal condition (a little higher than usual, perhaps), and admits of immediate recovery from its influence without any sense of nausea or dizziness."

CHOLERA—Although official reports concerning the progress of cholera in Egypt are no longer made, and consequently we have no means of knowing accurately the number of deaths in the places of its prevalence, yet the indications are that the epidemic is slowly subsiding, and Western Europe remains up to last advices free from the disease. In the meantime, there are no evidences that bowel affections have been more prevalent or fatal in our principal cities during the month just past than the usual average. It is the part of highest wisdom, however, for all parties, including both governments and people, to use all reasonable precautions against the introduction of infectious diseases from without, and still more to remove all internal sources of filth and impurity of soil, water, or air, that are capable of removal. Such a course will always pay, in lessening the suffering and mortality from ordinary diseases, if no extraordinary epidemics were threatening an invasion.

YELLOW FEVER—This scourge continues to extend its prevalence in its native territory, the West Indies, and to come in infected vessels to several of our Gulf and South Atlantic ports. Thus far, however it has not succeeded in getting beyond the quarantine stations, and unless the atmospheric temperature should be unusually high during the next six weeks, there is a strong probability that our country will escape any considerable prevalence of the disease the present season.

CORRESPONDENTS—In the absence of mature arrangements for regular correspondence from our chief cities and medical centers, we have thought best to publish such letters as we have been favored with, especially when they contained some criticisms on our own work in connection with THE JOURNAL. It was on that principle that we admitted the letter in relation to advertisements, though objectionably personal in regard to one of the best drug manufacturing houses in the country. Also the letter of Dr Fite

in this number, which is certainly written in a vein of intolerance of opinion regarding questions of great importance, which are not only still on trial on both sides of the Atlantic, but concerning the value of which the wisest and most learned of past generations have differed as widely as those of the present. We will be pleased to receive communications from any and all sources, and will endeavor to treat all honestly expressed opinions on topics of interest to the profession with liberality, but we earnestly request all writers to cultivate the habit of treating the views of others with the same respect as they would ask for their own.

THE CONVENTION OF MICROSCOPISTS — In this number we complete an interesting account of the proceedings of the National gathering of those specially engaged in microscopic investigations. The meeting was a highly interesting and profitable one, and our readers may be favored with some additional matter gathered during its progress.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE — This important National Organization of Scientists is holding its Annual Session in Minneapolis as we go to press with this number of THE JOURNAL. We expect to favor our readers with some account of its doings in our next number.

BACK NUMBERS — Inquiries still come whether members who now pay up, or non-members who subscribe, can have the numbers from the beginning. To all such we answer, yes. Complete files can be supplied, and missing or imperfect copies cheerfully replaced.

CORRESPONDENCE

IS QUININE AN OXYTIC?

WEAVERSVILLE, N. C.

There has been, and is yet, a controversy among medical men as to whether quinine has oxytotic properties or not, some contending that it has such beyond doubt, and warning the profession to be cautious in its use in cases of pregnancy, and others equally learned and experienced affirming that it is a mistake that quinine has no such therapeutic action. May not both sides be correct, as the idiosyncracies are so very different? I once had a patient that neither quinine or ergot had any effect upon, but the decoction of uva ursi acted quickly and with power. I have a female friend to whom spirits of turpentine is more poisonous than the rhus toxicodendron—even a few drops, in lineament, rubbed on the hand, in a few hours will inflame her arm to the shoulder, producing the same effect as a thorough application

of the poison from the poison ash. Now, if the idiosyncracies of persons are so very different, may not quinine act upon some women as an oxytotic, while it would have no such effect on others? My own experience is, that it acts as an oxytotic on about one in ten, while you may give it in large or small doses to the other nine in any state of pregnancy, or even at delivery without any effect in that direction.

From all the facts before me, together with my experience, my conclusion is that we should be cautious in its use, unless we know precisely the effect it has by direct observation, on the woman to whom we are about to administer it, but if we know that it has no oxytotic effect on our patient, then we may give it with impunity. J. A. REAGAN, A. M., M. D.

ENLARGED TONSILS

STONE MILLS, N. Y., July 25, 1883.

EDITOR N. S. DAVIS—*Dear Sir*—I notice in THE JOURNAL an item in regard to the treatment of enlarged tonsils which put me in mind of a case which I had treated some time ago. I was called to see a little girl, about 6 years old, who had both tonsils enormously enlarged, so much so that she could hardly breathe, and was becoming pigeon-breasted.

My *modus operandi* was as follows: I took a stick of caustic potash, rolled it in paper, leaving one end bare, placed the bare end on about the middle of the tonsil, held it there about two seconds, withdrew it, waited about a minute, then had her rinse her mouth with vinegar. Repeated treatment twice per week until they were reduced to normal size, being careful to apply in same place each time. I made in all twenty-three applications, treating but one tonsil at a sitting.

I treated her three years ago, and her tonsils have been all right since. GEO. G. SABIN, M. D.

CHOLERA PREVENTION

NASHVILLE, August 10, 1883.

EDITOR JOURNAL OF AMERICAN MEDICAL ASSOCIATION,

My Dear Doctor—THE JOURNAL of July 28 has an excellent letter on cholera from Dr. H. Raymond Rogers, of Dunkirk, N. Y., but I beg leave to insist on it that such expressions as the following should be omitted from cholera articles: "We know this disease laughs at cordon sanitaire or quarantine."

Now, it is time the profession had gotten over such free and easy statements. His excellent ideas on the pathology and treatment of cholera are marred by such a statement.

Cholera is, in a broad sense, a contagious and infectious disease, and the world should be taught to admit it, and act accordingly. It is communicable by persons, by traps of all kinds, by water, through the mails, and perhaps through the air for short distances. It is useless to cite authorities to prove this; it is one of those well established facts that no unprejudiced person can doubt, if he will read a part of or all the mass of evidence in any library in the land.

I will not say that I have no such

general statements should be used at this time, as public confidence is thereby destroyed in all preventative measures. It may be true that fresh dejections or personal contact will not produce cholera, but this refinement of argument should be entered into if anything at all is said about it.

The fearful difficulties sanitarians meet with are increased tenfold by such statements, made thoughtlessly at the beginning of, or just before, an epidemic invasion. They are treasured up by bigots, and the explanation in extenso not being at hand, they are used with great force by those self-taught and ignorant meddlers we find in every community. Only last evening I was present at a medical society meeting, where a prominent physician started out by saying he did not regard the disease as contagious or infectious, or communicable, in an accurate sense, yet in the course of his remarks he dwelt on the great value of quarantine and prophylaxis, and referred to it as a germ disease, due to a cryptogamic poison, etc. What did the reporters do? Why, of course they seized on the first remark, and heralded it to the world in the morning paper that Dr. So and so said cholera was not contagious or infectious, and therefore not communicable, not a word being said in regard to the other remarks.

What I insist on is that the doctors sometimes talk too much with the mouth, and are not particular enough in our applications, and we thus destroy public confidence.

Please tell Dr. Rogers about this, as well as your other correspondents. I believe you are going to have a splendid journal, if you do not let in too much Massachusetts politics, and code and advertisement wrangling. The JOURNAL will be a credit to the profession and to the American Medical Association, but it cannot afford to be partisan or one-sided. Very respectfully,

C. C. FINE

SOCIETY PROCEEDINGS

REPORT OF THE PROCEEDINGS OF THE AMERICAN SOCIETY OF MICROSCOPISTS.

[Continued from No. 5]

Thursday morning Dr. A. M. Bleiwe, of Columbus, Ohio, read the following paper, entitled "The Effects of the Division of the Vagi on the Muscles of the Heart."

Some of the gentlemen present may remember that at the meeting held last year I presented a paper having for its object the demonstration of nutritive or trophic nerves for the heart. The procedure adopted was as follows. One or both vagi were divided in the neck, and after a certain time the heart was examined. In all cases was found a fatty degeneration of the heart, much sooner when after division of both nerves than if one nerve had been practiced on and better marked the more the time had elapsed between operation and death. These results were all obtained on the rabbit. The Society requested that this investigation be pursued further and a report be made at this meeting. Various causes have since prevented our carrying out the work as thoroughly

and systematically as we could have wished. Chief among these was our inability to procure more than a few rabbits. We finally concluded to use pigeons, and even here we had some difficulty in procuring a large stock of animals and a regular supply. The procedure with pigeons was the same as that followed in the rabbit, one or double-sided vagotomy, and where animals did not die from changes superinduced by the operation, death was caused by decapitation or nicotine. A small part of each heart was examined fresh, and the other portion divided into two parts. One was immersed in alcohol, the other in diluted chromic acid. We found that light staining facilitates examination, and of late have almost exclusively used a very diluted eosine solution, the preparation being immersed in this for one or two minutes just before tearing. The granules themselves are not stained by this agent, but the slight tinging of the basis substance was found to be quite a relief in protracted observation. Tearing the pigeon heart is a much more tedious process than with the rabbit heart, nor can such satisfactory preparations be obtained, owing to the extreme delicacy of the fibers in the former. In preparing specimens of the normal heart for a standard, it was soon found that young pigeons were entirely useless for this work, as in them the muscular fibers are all finely granular, the cross-striae being only indicated by a row of granules. This we verified with many hearts. Pigeons which have undergone double vagotomy die in from ten to thirteen days. Immediately after the operation they are profoundly affected, recover somewhat after a few days, though never fully, and death comes on suddenly without any noticeable signs. At the autopsy the crop is usually found filled with corn and a whitish, fetid fluid, but the direct cause of death is not apparent. In animals which have undergone a one-sided vagotomy only, everything appears to have passed off in a few hours, the pigeon appearing just as one uninjured, nor is there any microscopic change after death.

As a result of our work I would name the following points:

1. The fibers of the pigeon are more delicate and more friable than in the rabbit.

2. In young pigeons the cross-striation of the muscular fibers of the heart is indicated by the fine granules which might be mistaken for beginning degeneration.

3. Even in the adult pigeon granular fibers are occasionally found by the side of well-marked striated ones, the former being perceptibly narrower. Possibly the granular fibers are still embryonic, and destined to replace the older ones as needed.

4. Recently Pohl Rincus has pointed out that the frog's heart has two sets of muscles—the outer one termed the mouth, and the other forming by its arrangement into trabeculae a system of lacunae in which the blood circulates. In our pigeon heart preparations blood corpuscles seem to lie in interstices, possibly corresponding to the lacunae of the frog's heart, and these corpuscles, when altered by reagents, might be mistaken for larger fat granules.

5. After division of one vagus only there follows

in the heart muscle of the pigeon a finely fatty degeneration, about equally marked on both sides of the heart, and more plain the longer the animal has been kept alive after the vagotomy

6 After double vagotomy the degeneration is better marked—i. e., the fat granules are large and appear sooner than after one-sided vagotomy. Hence we conclude that the vagus in the pigeon, as in the rabbit, carries trophic cardiac fibers, no other explanation accounting for the changes found, and that the influences descending by one nerve are sufficient to somewhat retard the degeneration on both sides which would follow a double division

Dr T S Updegraff, of Elmira, N Y, followed with a paper on

HITHERTO UNDESCRIBED ANIMALCULE

The value of this gentleman's observations cannot be considered great, since Prof Kellicott at once showed that a form described as a new naus is the larva of a well known insect

Dr Christopher Johnson, of Baltimore, Md, gave a verbal description of a

NEW POLARIZING CRYSTAL,

which he calls the ethyl ether of gallic acid

A paper entitled

NOTES ON NEOPLASM,

by Dr W A Birchmore, of Kansas, was read by title, and also another by the same author on

EMBOLISM IN PIGS

A letter from the Rev Francis Wolle, of Bethlehem, Pa, announced that his work on the "Desmids of the United States" is nearly completed

Thursday afternoon, Prof G E Blackman, of Dunkirk, N Y, read a paper on

THE RELATION OF APERTURE TO AMPLIFICATION IN THE SELECTION OF A SERIES OF MICROSCOPIC OBJECTIVES

In the selection of a microscopical armamentarium the problem for the ordinary worker is to provide an outfit which shall enable him to see clearly all the details, which, invisible to the unaided eye, are yet visible by the aid of the microscope. To accomplish this amplification alone is not sufficient, resolving power is also required. This depends on angular aperture, but, as the relation is not a simple one, Prof Abbe, of Jena, has introduced the term numerical aperture which applies to all lenses dry and immersion, and expresses a simple and constant relation to the important property of aperture resolving power. The numerical aperture is easily found by multiplying the refractive index of the medium in which the angle of aperture is measured by the sine of one-half that angle. Now if the numerical aperture of any objective is multiplied by 96,400 we get the average resolving power of that objective.

With these data we can choose a series of objectives and eye-pieces which will answer all purposes. The choice is guided by the practical rule that no more amplification or aperture should be used than is required. The starting point is the fact that lines 100 to the inch can easily be resolved by the unaided eye. It is assumed that the objectives are of the

highest grade of workmanship, and the length of the tube from the front surface of the objective to the diaphragm of the eye-piece ten inches. The eye-pieces should be six in number, viz 2-inch, 1-inch, $\frac{3}{4}$ -inch, $\frac{1}{2}$ -inch, $\frac{3}{8}$ -inch and $\frac{1}{4}$ -inch. The objectives required are the following. One 4-inch of 10 N A, having an amplifying power of $12\frac{1}{2}$ with a 2-inch eye-piece and a resolving power of 500 lines to the inch, one 1-inch of 26 N A, having an amplifying power up to 200 with a $\frac{1}{2}$ -inch eye-piece, and a resolving power to 20,000, one $\frac{1}{6}$ -inch, dry working, cover correcting objective of 94 N A, having an amplifying power to 1,200 with $\frac{1}{2}$ -inch eye-piece, and a resolving power to 90,000, one $\frac{1}{8}$ -inch homogeneous immersion objective of 142 N A, with amplifying power to 1,600 with $\frac{1}{2}$ -inch eye-piece, and resolving power to 13,000.

It is evident, therefore, that a $\frac{1}{6}$ -inch or a $\frac{1}{8}$ -inch objective will show all that can be seen with a 1-50, while the advantages of the lower power are very great.

In the discussion, Prof Rogers questioned whether we can compute resolving power, and gave reasons for doubting that this simple formula of Abbe's tells the truth.

After this discussion, there were presented by far the most important papers of the session, namely, the reports on the standard centimeter, one by Prof Rogers, and the other by Dr Curtis, Secretary of the National Committee on Micrometry.

Prof Hilgard, Superintendent of the United States Coast Survey and Director of the Bureau of Weights and Measures, presented to the National Committee the centimeter scale 1882, A, which is carefully ruled on a platinum-iridium surface. This scale is divided into ten millimeters, each division being marked by three lines, distant from one another ten microns. The first millimeter is again divided in the same manner into tenths of millimeters. The first tenth of a millimeter is subdivided into ten spaces of ten microns each. The report of the committee gives the corrections to the different divisions of the scale. None of these are as great as one micron. Prof Rogers determined the coefficient of expansion of the platinum-iridium plate, and compared centimeter A with other standards whose corrections had been previously ascertained. Assuming that 2 M is the limit of precision in microscopic measurement, the observations of Prof Rogers show that the centimeter A is 1-100 part of the metre des archives at 60° F, and that the second millimeter of the scale is 1-1000 part of the metre des archives at the same temperature.

It thus appearing that this centimeter has every essential of a standard of measurement, the Committee presented it to the Society and recommended that it be adopted as the basis for future studies and discussions in micrometry.

The report of the Committee was adopted by the Society with thanks to Prof Rogers and to the Committee. The Law was ordered to be placed in charge of the custodian, subject to removal only by the order of the Secretary, countersigned by the President. A committee consisting of Prof McCilla, Dr Leste

Curtis and Dr Geo Fell, was appointed to take copies of the bar for such societies as may desire them.

The importance of this action of the Society will be appreciated when we consider that it will probably determine the standard of microscopic measurement, not only for this country, but also, for England and the rest of Europe. As is well known, the world has never agreed upon a general standard.

The micrometers of different makers are correct neither in regard to the total length of the unit employed nor in respect to the subdivisions of that unit. Until by very great labor and expense, Prof Rogers obtained accurate copies of the meter and yard, and compared these so carefully with centimeter A, there was not in the world an exact unit of microscopic measurement.

The number of accurate observations on this bar, together with its adoption by the microscopists of the United States, constitute an important argument for its adoption by the world.

In the discussion following this report, Prof Rogers made the interesting statement that according to his comparison of the yard and meter, the value of the latter is 39 37030 inches, while the generally received value is 39 37079 inches.

Thursday evening the Society held a conversazione at the Calumet Club House. About 300 microscopes were exhibited, and many interesting slides.

Friday morning the following officers were elected for the year 1883-4. President, Hon J D Cox, F R M S, of Cincinnati, Vice Presidents, Prof T J Burrell, of Champaign, Illinois, and Prof W A Rogers, F R M S, of Harvard University, Executive Committee, Prof A H Chester of Clinton, New York, Dr H A Johnson, of Chicago, and Gen Wm Humphrey, of Jackson, Michigan. It was decided to hold the next meeting at Rochester, New York.

Dr W T Belfield exhibited some photographs of crystals of pure and adulterated lard and tallow.

Dr D S Clevenger, of Chicago, gave a short paper on "The Microscope in the Physiology and Pathology of the Brain."

Dr Thomas Taylor, of Washington, presented a paper on "Internal Parasites in Fowls." He had examined several fowls which had died of an unknown disease, and found a number of parasites, some of them new, in the lungs, the cellular tissue, and the intestinal canal. These studies suggest the conclusion that many of the diseases of the domestic fowl, not referable to any known type, may be due to the presence of parasites.

A paper by Dr Holbrook, of New York, on the "Termination of the Nerves in the Kidneys," was next read. The nerves were traced by the use of chloride of gold as a staining agent. This substance has the property of staining the nerves dark violet, more intensely than it stains other kinds of matter, while formic acid removes the stain less readily from the nerves.

The fresh kidneys, as well as those preserved in chromic acid solutions, were frozen in a freezing microtone, and the cut sections were placed in a $\frac{1}{2}$ -per cent solution of chloride of gold, where

they remained from forty minutes to several days. Then they were washed and left in a 25-per cent solution of formic acid from a few hours to days. The results obtained are thus given.

The nerves supplying the kidneys are mainly of the non-medullated variety. They accompany the larger arteries of this organ, either in bundles or in flat, expanded layers, and the latter features I found more common than the former.

Sometimes an artery would be found encircled by a network of non-medullated nerves of a bewildering number. Hundreds of such nucleated bundles of fibers could be traced around, above, and below an artery, freely branching, bifurcating, and supplying all the neighboring formations with a large number of delicate fibrillæ. In such a case the single non-medullated nerve fibers lay apart and were separated by an extremely delicate layer of fibrous tissue, the perineurium internum. The corticle substance undoubtedly derives all of its nerves from such bundles accompanying arteries. The pyramidal substance is supplied with bundles of non-medullated nerves, apparently independent of the arteries, at all events such formations are exceedingly scanty here. The bundles of non-medullated nerve fibers are marked by a large number of nuclei. True ganglions I have seen only in small numbers. The bundles of nerve fibers give off delicate ramules to the afferent vessels by which they enter the tuft, and here they produce a delicate plexus spun around its capillaries. It was impossible to decide where the ultimate fibrillæ branch in the capillaries of the tuft, because in the specimens treated with formic acid it was impossible to distinguish between the flat epithelia covering the convolutions of the capillaries and the endothelia covering their interior. Sometimes I obtained a specimen in which it seemed as if the ultimate fibrillæ branched beneath the covering flat epithelia in the delicate connective tissue between the convolutions of the capillaries, but of this I am not certain. I wish here to corroborate the assertion of L Bremer, that every capillary is supplied with a plexus of non-medullated nerve fibrillæ, but I disagree with his assertions, that the nerves run outside the wall of the vessel and do not penetrate the wall itself. My own observations, I think, leave little doubt that they penetrate the cement substance between the endothelia. Concerning the distribution of the nerves in the middle coat of the arteries, I fully agree with the assertions of M Lowitt that they run between the smooth muscle fibers. From the large bundles of non-medullated nerve fibers innumerable delicate beaded fibrillæ arise, and course in the delicate fibrous connective tissue between the uriferous tubules. In perfect specimens there is no difficulty in satisfying one's self of the fact that every tubule is encircled by a plexus of non-medullated nerve fibers coursing either in the immediate vicinity of the tubule, in the interstitial connective tissue, or within the dense layer subjacent to the epithelia, known as *membrana propria*, or even within the layer, along the feet of the epithelia themselves. Obviously those nerves are most favorable for research which course outside of the epithelia, at a

small distance from the membrana propria Here we can, sometimes, see at certain regular intervals, arising at right or acute angles, extremely delicate nerve fibrillæ, which pierce the membrana propria and run into the cement substance between the epithelia The distance in which these ultimate fibrillæ arise fully correspond to the breadth of a single epithelial element, so much so that in some places the impression of the ladder with regular rounds is obtained Of course, only one of the frames or side pieces of the ladder is seen In a front view of the epithelia the nerve fibrillæ can sometimes be traced in the form of a delicate plexus distributed in the epithelia, and not infrequently conveying the impression that every epithelium is surrounded by a nerve-fibril in the cement substance In an edge view this impression is not obtained, for we can see the interstices between the epithelia supplied with nerves only exceptionally, while in the majority of cases two or three epithelia seem to be supplied with only one nerve fibril common to them The latter image is more particularly pronounced along the straight collecting tubules in which, usually in edge view two nerve fibrillæ are situated between three or four epithelial elements, and here the cement substance, carrying the nerve fibrillæ, as much broader than the cement substance apparently destitute of nerve fibers If, however, we recall the fact that in a front view of the tubules the arrangement of the ultimate fibrillæ is plexiform, we obviously should not expect to see in edge view nerve fibrillæ between each single epithelium The distributions of the nerves in the uriniferous tubules seem to be richer in the convoluted and the ascending and descending limbs of the narrow tubules, while the straight collecting ones seem to be more scantily supplied Several times I have seen nerve fibers accompanying the loops of the narrow tubules in a direction corresponding to their course Recent researches made by S Stricker make it evident that the cement substance between the epithelia is by no means an invariable formation, and that temporarily the ledges of the cement substance may be distinctly seen, at other times, on the contrary, be lacking to such an extent that the epithelia represent one unbroken layer of protoplasm with nuclei at regular intervals Even when the cement substance is apparent, in variably transverse spokes (the formerly so called thorns) are seen traversing the layers of cement substance interconnecting the single epithelia It is these spokes with which the nerve-fibrillæ mosculate Thus we easily understand the way in which nervous impulse is transmitted into the interior of the small secretory work-shops, termed epithelia Dr Beale claims to have traced the nerves of the kidney to their distribution around the vessels and uriniferous tubules, but makes no mention of their final endings The low power used by him leads me to think that he may have mistaken connecting tissue-fibers for nerves I have searched the records of microscopic research carefully since 1870, and find no special mention of discoveries in the terminations of the nerves in any glandular organ

The last paper of the morning session was by Dr Hudson, on Torula

Friday afternoon Prof Eastman, of Baltimore, gave a verbal description of the Eggs of the Tricocephalus Affinis in the Liver of the Rabbit

Prof Killicott presented two interesting papers, one on Cathartina data, and another on Parasites of the Cray-fish

Prof Mansfield, of Greencastle, Ind, read a paper on Division of Labor among Microscopists

A paper by Dr Lester Curtis on Observations on Undescribed Vessels of the Spinal Cord of the Cat gave the results of a new method of staining

After the reading of the papers the President elect was conducted to the chair, when he made a brief speech and then declared the meeting adjourned

**REPORT OF THE SECRETARY OF THE SECTION
ON SURGERY AND ANATOMY OF THE
AMERICAN MEDICAL ASSOCIATION,
AT THE MEETING IN CLEVELAND, JUNE, 1883**

CASE HALL, June 5, 1883

SECTION ON SURGERY AND ANATOMY—Meeting called together at 2 30 P M, by the Chairman, W F Peck, M D

Dr A F Holt's being the first paper on the programme he was called upon to read the same, but asked that his paper be postponed until late in the afternoon, as he wished to display illustrations by the magic lantern Granted

Dr R A Vance was called upon and read a paper on Radical Cure of Hernia, by a new method A motion was made that the paper be referred to a committee appointed by the Chairman

Dr D P Allen read a paper next on "Comparison of Antiseptic and non Antiseptic Method of Treatment" Discussions upon this subject were made by Drs Murdock, Penn, Martin, Mass, Hankin, Penn, Quimby, New Jersey, McClurg, Penn, Dr Gazalon, Maine, and Watson, New Jersey A motion to lay this discussion upon the table was made by Dr Murphy and carried

By special request Dr S D Gross, of Philadelphia, then read a paper upon the "Value of Early and Late Operation in Morbid Growth, Especially Malignant" A resolution was made by Dr Gazalon to request Dr Gross to present his paper for publication, but the doctor declined upon the condition, that the paper was the property of the Surgical Association

Dr H A Martin followed with a paper on "Treatment of Synovial Disease by a New Method" The rubber bandage was then displayed as his new method of treatment A motion to refer Dr Martin's paper to a committee for publication, carried

Dr Murphy made a motion that the Section should appoint a special time for the purpose of Dr J R Taylor of New York, and the motion being carried, the Chairman appointed 2 P M, on June 6th, as the special time, half an hour before the regular session

A motion to adjourn being in order, it was moved and carried

SECOND DAY, JUNE 5, 1883

SECTION ON SURGERY AND ANATOMY, CASE HALL—Meeting called to order by the Chairman, W F Peck, at 2 P M R C L M C would have taken

place at 2 30 P M Extra session of half hour for the benefit of Dr Taylor, to read a paper on "Fractures of the Long Bones" Dr Taylor not being present, Dr Robert Newman, of New York, was called upon and read a paper on the "Surgical Use of Electrolysis" Especial attention was given to its practicability in the treatment of stricture of the urethra

Dr W F Peck, Chairman, appointed a committee consisting of Dr McMurty, of Kentucky, Dr Moore, of New York, and Dr Park, of Illinois, to meet with the Secretary for examination of papers

Dr J R Taylor, of New York, read a paper, by request, on "Fracture of the Long Bones" The doctor displayed his apparatus for fracture of the femur

Dr Donald Mc Maclean, of Michigan, not being present, and being first upon the list for Wednesday evening, Dr Marcy was called upon and read a paper on the "Comparative Value of Antiseptics" A motion to receive and refer the paper to the committee for publication, carried

Dr Lewis Hall Sayre, New York, followed with a paper on "Amputation Below the Knee-Joint in Preference to Bresement Force or Resection in Certain Cases of Deformity with Anchylosis," illustrated by two cases Motion to receive and refer to committee, carried

As Dr J H Packard, of Pennsylvania, was not present at the Association, and having sent his paper on "Report of a Case of Re-Amputation at the Hip-Joint, Secondary Hæmorrhage on Sixth Day, Ligation of the Primitiva Iliac Artery," a motion to refer paper to committee, carried

Dr E M Moore, of New York, read a paper giving the details of a case in which $1\frac{1}{4}$ inches of the shaft of the ulna were resected To overcome deformity resulting from fracture of the radius, the ends of the bone were wired together, securing perfect union without deformity

Dr Wile, of Courtlandt, N Y, corroborated and sustained the conclusions of Dr Moore's paper Re-fracture of the bone when badly united is proper

Dr S M Ross, of Altoona, Pa, related a case of fracture of lower end of radius, where the ulna could not be retained in position

Dr H O Marcy, of Massachusetts, related a case of luxation of ulna seven weeks after fracture of radius, reduced after Dr Moore's method

Dr Qumby, of J C, asked what was the extent of time at which re-fracture was permissible Dr Moore stated that after six months if he did not get good results

Dr Kinloch, of South Carolina, asked if the same result could not be attained by resecting the ulna above the articulation

Dr V H Coffman, of Nebraska, read a paper on the "Treatment of Tender Spines by Incision," which was discussed by Drs Moore, Qumby, Campbell, Watson, and Steele of Illinois The discussion was closed by the author

CASE HALL, June 7, 1883

First, by request, Dr Alfred F Holt, of Massachusetts, showed at the Opera House some illustrations of anatomical and pathological specimens

Section was called to order by Chairman W F Peck

Dr W A Byrd read a paper on "Excision of Both Hip Joints" Dr Verety of Chicago, exhibited splint and apparatus which were used by Dr Byrd, after excision Motion to refer paper to committee for publication, carried Remarks were made by Drs Sayre, of New York, Garcelon, of Maine, and Gunn, of Chicago

A paper on "Surgical Treatment of Intestinal Obstruction" was then read by Dr Henry O Marcy Motion to refer to committee for publication The paper was discussed by Drs Watson, of New Jersey, Gordon, of Maine, and Byrd, of Illinois

Dr Gordon said he believed that carbolic acid would be excluded from antiseptic use, which was discussed by Dr Murdock, of Pennsylvania, Dr Keller, of Arkansas, and Dr Moore, of New York

Dr Prewett, of Missouri, read a paper on "A New Operation for Case of Ranula" Referred to Committee

Dr Jos Raurohoff, of Ohio, next read a paper on "Early Use of Trephine" Referred Discussed by Drs Gunn, of Illinois, and Hyde, of New York

Dr R B Bentley, of New York, followed with a paper on "The Treatment of Cystitis by External Urethral Section" Discussed by Dr Murdock, of Pennsylvania, and referred to Committee of Publication

Dr R B Bonteou, of New York, reported on "Treatment of Cystitis by External Urethral Section" Moved and carried that the Doctor be requested to prepare a paper on the subject, to be published in THE JOURNAL

Dr Joseph H Warren, of Massachusetts, read a paper on "Tissue Repair, or Pathology of Subcutaneous Injection in the Cure of Hernia" Discussed by Dr Hally, of Missouri, Dr Philips, of Ohio, Dr Reynolds, of Michigan, Dr Thorn, of Ohio, and referred for publication

Dr Verity, to write a paper on "Derrick and Improved Apparatus for Suspension in Application of Plaster Casts, etc," also on a "Universal Suspension Splint"

The following dispatch was received from Prof W W Dawson, of Cincinnati

"PROF W F PECK, Chairman Section on Surgery American Medical Association, Cleveland, Ohio — Sorry that I cannot meet with the Surgical Section Convey my kindest wishes to the Fellows, and my earnest wish that our department may this year be well sustained W W DAWSON"

Received, and the following ordered by the Section to be telegraphed in reply

"PROF W W DAWSON, Cincinnati, Ohio The Section sends Prof Dawson its sincere regret for not having had his presence and counsel"

Adjourned *sine die*

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the College of Physicians Third Series, Vol VI

Development of Cancer from Non-Malignant Diseases By Daniel Lewis, M D

The Opium Habit Its Successful Treatment by Avina Sativa By E H M Sell, A M, M D

Usual exchanges

MEDICAL SOCIETY ITEMS

NORTHWESTERN INTER-STATE MEDICAL SOCIETY

About one year since a society was formed in Hudson, Wisconsin, by a good delegation of physicians and surgeons from both Minnesota and Wisconsin. The society was christened "The Northwestern Inter-State Medical Society," and embraced twelve counties lying on either side of the State line from Lake Pepin to Lake Superior.

It meets every four months somewhere in the district, but its regular annual meeting is always in Hudson, on the first Tuesday in August. It starts out on its second year with its membership greatly augmented, and bids fair to be the source of both pleasure and instruction to its members.

The next meeting will be held in Eau Claire on the first Tuesday in December. The society is thoroughly orthodox, and cordially invites membership.

NECROLOGICAL

BURNHAM, WALTER, M D, was born at Brookfield, Vt, Jan 15, 1828, and was the son of Dr Walter Burnham, a distinguished physician of that town, died at his residence in Lowell, Mass, Jan 16, 1883, of gastritis.

When returning from a professional visit to New York, in Jan, 1880, he received so severe an injury of the left elbow, by a fall at Elmira, as to necessitate an amputation of the arm in the following year.

From this time his health gradually failed, though his mental faculties seemed but little impaired even to the time of his death, at the age of 75.

Dr Burnham graduated from the University of Vermont in 1829, and commenced the practice of his profession in Guildhall, Vt. Thence he removed to Barre, and in 1846 came to Lowell, where he soon became engaged in a large practice, mainly surgical.

By the citizens of Lowell he was often called upon to fill public positions of trust and responsibility. Among them were two terms of service as a representative to the General Court of the State. While a member of the Legislature he presented to that body a bill known as "The Anatomy Act," which provided for the use of certain material by the medical schools of the State, and by physicians, for the purposes of dissection.

Mainly through his efforts this bill was passed, and

with few, if any, modifications, is now a statute law of Massachusetts.

He thus rendered to the advancement of medical science a great and lasting service.

Although he enjoyed a wide reputation as a general surgeon of great ability, yet he was known to the profession at large especially as an ovariologist. He made his first ovarian operation in 1851, at a time when the almost universal sentiment of the medical world was opposed to ovariectomy, and when Atlee, of Pennsylvania, was perhaps the only American who advised and performed the operation.

His first case was successful, and others followed in rapid succession, until in 1881 his whole number of cases was about two hundred and fifty, of which more than seventy-five per cent had recovered.

In New England, at least, the change of sentiment regarding ovariectomy was largely due to the work and teaching of Dr Burnham.

To him is due, also, the credit of having been the first to successfully remove the uterus and its appendages by abdominal section. This operation was performed in June, 1853.

While great respect and honor was accorded to Dr Burnham by his professional confreres as one of the pioneers in the advancement of abdominal surgery, still, from his patients and others with whom he came in contact, he was the recipient of a measure of good will and affection larger than is often accorded to members even of our profession.

To young practitioners just entering upon the struggles of their professional life, Dr Burnham always extended a helping hand. In all their difficulties and discouragements an appeal to him was answered with reassuring words and generous acts.

Whenever he had occasion to give them instruction or correct their errors he did it with wonderful gentleness and patience.

To day many surgeons in successful practice remember with deep gratitude their indebtedness to Dr Burnham.

JOHN C IRISH, M D

MASON, AUGUSTUS, M D, died at his residence, in Brighton, May 24. He was born in Waltham, Mass, Oct 21, 1822, was graduated from Brown University in the class of 1841, studied medicine at Harvard University, taking his degree in 1844. He continued his medical studies in Paris until 1847, when he commenced the practice of his profession in Lowell, and removed to Brighton about 1855. He was eminently successful in his calling, holding for many years a leading position as a practitioner in this large suburban town. He was commissioned as Assistant Surgeon of the 43d Reg Mass Vol, and was stationed in Newbern, N C, where he served until the spring of 1863, when, owing to the illness of Mrs Mason, he resigned his commission and returned home. In 1873, he relinquished his practice and went to Santa Barbara, Cal, for the benefit of his invalid wife. Here he remained till 1877, when he returned to Brighton and resumed his work. He was a member of the American Medical Association and of several of the local societies. He was elected to the Inter State Medical Congress,

NECROLOGICAL

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London last year. He frequently contributed to the literature of his profession, and is best known for his studies upon the climatology of Southern California. He was esteemed and beloved in Brighton, not only for his ability, but as a public-spirited citizen, prompt in furthering every local interest, and he was exceeded by few in the real service rendered his town. He was active in the redemption of Brighton from the long continued detriment sustained on account of the many private slaughteries, and in the establishment of the abattoir, which at once added materially to the intrinsic value of property. Thus was removed an important cause of the ever widening contamination of air, water and soil. He held large properties, which he had done much to develop, and, at the time of his death, was actively engaged in plans for furnishing better metropolitan steam railroad facilities. He had been but a few days sick, and his death was sudden and unexpected.

H O MARCY, M D, of Mass

MORRISON, JAMES, A M, M D, was born in Peterborough, N H, June 20, 1818, and died in Quincy, Mass, May 20, 1882. He graduated at Harvard University, in 1844, and studied medicine at the University of Maryland, from which he received his medical degree in 1846. For a number of years he was the resident physician at the Baltimore Infirmary. About 1850 he moved to San Francisco, Cal. He assisted in the organization of the first medical school on the Pacific, and was Professor of Theory and Practice and Pathological Anatomy. He taught for about five years. For two years he was a student of medicine in Europe, devoting most of his time to study in Paris. He was a trustee of the University of the Pacific. His practice was large, and he was an active worker in the advancement of the standard of medicine in California, and at one time the Vice-President of the State Society. Ill-health and his love for New England caused his return to Massachusetts. For the last twelve years he had been able to continue the practice of his profession, and had contributed occasional articles to various medical journals. At the time of his death he was President of the Norfolk District Medical Society.

H O MARCY, M D, of Mass

ASHFORD, FRANCIS ASBURY, M D, of Washington, D C, was born in Fairfax county, Va, September 18, 1841, died at his residence, in Washington City, May 19, 1882. He was educated at the Academy in Alexandria, Va. The breaking out of the war between the States interrupted his academic course, as he joined the Southern army and served to the close of the war. His medical studies were begun immediately after the armies were disbanded, and pursued under the supervision of Dr Thomas Miller, of Washington, between whom and his pupil there was established a firm and lasting friendship, which lasted through the life of each. Attending lectures at the medical department of Columbia College, from which he graduated M D in 1867, he was for one year resident student in Columbia Hospital, and four years Assistant Physician under Dr J Harry Thomp-

son. He subsequently became Assistant, and, after his own practice became large, he gave up that position for Consulting Surgeon, and was a member of the Board of Directors, which position he retained to the time of his death. He was physician in charge of diseases of women in Columbia Hospital Dispensary. In 1876 he was elected Professor of Surgery in the Medical Department of the University of Georgetown College, and also Dean of the Faculty, a position which he filled with ability and great acceptableness to the Faculty and to the students. He was one of the originators and founders of the Children's Hospital, which has grown to be one of the very best institutions of its kind in the country. He has served creditably as Surgeon to the Hospital, and has endeared himself to all connected with this charity. For two years he has been connected with the Faculty of the Training School for Nurses, where he exhibited his usual ability. Dr Ashford early connected himself with the medical organizations, and was one of the originators of the Clinical Pathological Society, which for a few years was a very active and profitable association to its members. In the Medical Association, the chartered organization, he has been a very active and useful member, and was its President last year. He was also a member of the Medical Society of Washington and of the Gynecological Society of Washington. Dr Ashford has contributed some exceedingly useful papers to the medical journals. For the last six or eight years his practice has been large and laborious, and doubtless had something to do with his failing health. The medical organizations with which he was connected met in special sessions, and passed resolutions of respect for his memory and of condolence with his family. He leaves a wife and five children.

BACHE, BENJAMIN FRANKLIN, Medical Director, U S N, was born at Monticello, Va, February 7, 1801, died November 2, 1881. He was a great grandson of Benjamin Franklin. Graduated from the College of New Jersey, at Princeton, in 1819, and from the Medical Department of the University of Pennsylvania in 1823. He was for several years, while on furlough from the Navy Department, Professor of the Natural Sciences at Kenyon College, Ohio.

Dr Bache was a man of profound learning in his profession, and of great and varied general information. He was an omnivorous reader, and had the advantage of a remarkably retentive memory. He established the Naval Laboratory on the principle of a guarantee of purity of medicinal preparations to be used in the naval service, and carried on its work for many years. As an expert in crude drugs he had acquired a remarkable degree of skill.

Dr Bache was the first (within the knowledge of the writer) to apply the principle of disinfection by means of heat, to a ship, having early in his career been successful in ridding a ship in which he was serving, of a severe epidemic of yellow fever by that means.

E S B

Forwarded by J N Gunnell, U S N

Philadelphia, December 22d, 1882

An analysis of seven samples of Quinine Pills, obtained without knowledge of the manufacturers, was made and published in the American Journal of Pharmacy by me, and those made by WILLIAM R. WARNER & CO. were found to be correct as to quantity and purity of Quinine

HENRY TRIMBLE,

(Analytical Chemist.)

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UNIVERSITY OF PENNSYLVANIA

DR F A GENTH
CHEMIST

West Philadelphia, January 24th, 1883

I have analyzed the Sulphate of Quinine Pills manufactured by Messrs WILLIAM R. WARNER & Co., and those purporting to contain, according to the label, two grains, I found to contain fully two grains of Sulphate of Quinine in each pill

F A GENTH

[August, 1883]

ADVERTISEMENTS

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The Post Graduate Instruction for the Session of 1883-4 includes the following subjects

CLINICAL MEDICINE AND PHYSICAL DIAGNOSIS, by PROF PEPPER and DR BRUEN	OTOLOGY, by PROF STRAWBRIDGE
RENAL DISEASES AND DIABETES, WITH PRACTI- CAL EXAMINATION OF URINE, by PROF TYSON	GYNECOLOGY, by DR F F BAER
NERVOUS DISEASES AND ELECTRO-THERAPEUTICS, by DR S WEIR MITCHELL and DR SINKLER, at the Ortho- pædic Hospital	OPERATIVE AND GENITO-URINARY SURGERY, WITH VENEREAL DISEASE, by DR WHITE
CLINICAL SURGERY, by PROF ASHHURST	CLINICAL AND OPERATIVE OBSTETRICS, by DR L RICHARDSON
OPHTHALMOLOGY, by DR S D RISLEY	LARYNGOLOGY, by DR SEILER
DERMATOLOGY, by PROF DUHRING	DISEASES OF CHILDREN, by DR STARR

The teaching consists in bedside and dispensary lessons in the practical examination of patients, and the use of instruments of precision in the diagnosis and treatment of disease to classes composed of graduates only. At least two hours weekly are devoted to these objects in each of the branches named. The instruction is given at the University and other Hospitals with which the different members of the staff are concerned.

In addition the classes are permitted to attend without additional expense, the general and special clinics of the University, and such didactic lectures as do not interfere with the Post Graduate instruction.

There will be Five Courses Annually of Six Weeks each, as follows

The First Course will begin October 1st 1883	The Second Course will begin November 12th, 1883	The Third Course will begin January 10th 1884	The Fourth Course will begin February 21st 1884	The Fifth Course will begin April 15th, 1884
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ORIGINAL ARTICLES

SIMULTANEOUS TRAUMATIC DISLOCATION OF BOTH HIP JOINTS

BY JOHN H. PACKARD, M.D., OF PHILADELPHIA

[Read before the Section on Surgery and Anatomy June 1883]

Simultaneous luxation of both femora is an accident of very rare occurrence. It is not mentioned at all by Malgaigne, and Hamilton barely refers to it. Among systematic writers on general surgery, Erickson merely states that it has been recorded in some instances, while Gibson¹ says "an interesting case of the kind was reported two or three years ago in one of the European journals." Gross says that three cases are recorded.

My attention was attracted to the subject by a case which occurred during my service at the Episcopal Hospital, in 1879, and I have succeeded in collecting twelve others. Even this small number presents certain features which seem to me to warrant me in placing them together, for the purpose of drawing some inferences in regard to the mechanism of their production, and the occasional difficulties in diagnosis which they may present.

These thirteen cases admit of division into three classes. In the first, which embraces eight out of the whole list, are those in which the head of one femur has slipped out behind the socket, so as to lie upon the dorsum ilii, or the ischium, while the other has been dislodged forward, so as to rest either on the thyroid foramen or the pubis.

The second class includes three cases, in which both femora have been luxated backwards.

Of the third class there are but two instances, the heads of the bones resting on the thyroid foramina.

CASE I—Boisnot (*American Journal of the Medical Sciences*, October, 1867, p. 396). The patient, a robust man, æt 40, was standing on the sidewalk awaiting the descent of a bundle of wool weighing over 100 pounds from the fourth story of a factory. He had both hands raised, his left foot somewhat advanced, and the right placed back a little and turned outward. As he stood thus the bundle became detached and fell the whole distance, striking him on the head and knocking him down on his right side.

The left femur was at once seen to be luxated on the dorsum ilii, and reduced by Reid's method, when, from the difficulty of bringing the legs to-

gether, it was noticed that the head of the right femur was on the pubis. Under chloroform, this dislocation was then reduced, also by manipulation. Perfect recovery had taken place by the twenty-eighth day.

CASE II—Hodgen (*American Journal of the Medical Sciences*, July, 1855, p. 280; *St. Louis Medical and Surgical Journal*, January, 1855). This patient was trying to stop a pair of runaway horses, and was knocked down, the wheel passing over the sacrum, and crushing him to the ground. On examination, the left femur was found to be misplaced its head resting probably on the spine of the ischium, the left was opposite the thyroid foramen, but not forced into it. Both luxations were reduced under ether, by extension and counter-extension. The patient was well so as to walk without assistance in two months and a half, but there was some difference in the length of the lower limbs, attributed to injury of the pelvis.

CASE III—J. M. Warren (*American Journal of the Medical Sciences*, April, 1858, p. 563; *Boston Medical and Surgical Journal*, January 14, 1858). In this case the patient was crushed under a falling house, being struck in the back as he was endeavoring to escape. The right thigh was found to be luxated, the head of the bone being in the thyroid foramen. Reduction was effected by means of pillows. The left limb was next examined, and presented all the signs of dislocation upon the dorsum ilii, slight crepitus was also perceived. Extension being made, the head of the femur went into its place, but at the same moment a crack was heard, and it soon became evident that fracture had taken place.

In spite of an attack of congestion of the lungs, there having been also fracture of one or two ribs, the patient went out of the hospital well at the end of two months.

CASE IV—Mr. Pollard (*St. Bartholomew's Hospital Reports*, vol. viii, 1872). A man æt 53 was stooping down, when a mass of earth fell upon his back, forcing him forward and burying him.

The left hip was found to be dislocated, the head of the femur on the dorsum ilii, the right with the head in the thyroid foramen. Under chloroform the former was reduced by manipulation only, the latter by manipulation, with extension.

The accident happened on the third of May, but the patient was not well until the sixteenth of July.

CASE V—Allis (*Trans. of Pennsylvania State Med. Society*, 1879), records the case of a colored man, æt 42, injured by the caving in of some earth,

used as ship's ballast, upon him. He thought he was in the act of stooping when the earth fell, striking him upon the back in the region of the loins and pelvis. Seventy-eight days afterward luxation of the head of the right femur upon the dorsum ili was detected. Some days later it became clear that the left hip was the seat of dislocation upon the thyroid foramen.

CASE VI—This was my own case, which, as already said, occurred in 1878. On the 23d of October, in that year, there was a very violent storm of wind and rain in Philadelphia, and the patient, a German, aet 40, finding his house rocking, started to run out. As he reached the door the house fell, and he was caught in the ruins. Being brought to the Episcopal Hospital, it was found that he had sustained a luxation of the head of the right femur into the thyroid foramen, and of the left upon the dorsum ili. By simple flexion and adduction, the knee being at the same time pushed downward, the head of the right femur was replaced in the socket by Dr Harvey, the resident surgeon. On my visit an hour or two afterward I easily reduced, by Reid's method, the left hip, which had presented the usual signs. The case did perfectly well, the man being able to walk about in a few days. He was, however, retained in the hospital for five or six weeks on account of a compound fracture of the right arm, sustained at the time of his other injuries.

CASE VII—W O Roberts (*Louisville Med News*, Jan 21, 1883). This was the case of a healthy, well-developed man, aet 62, who while stooping down was struck by a falling pile of planks and borne to the ground. "His left lower limb was abducted, semi-flexed, and measured five inches longer than the right. The right was adducted, semi-flexed, and rotated inward." It was therefore clear that the head of the right femur was on the dorsum ili, while that of the left was in the thyroid foramen. Reduction of both dislocations was effected by Reid's method.

The patient's recovery was retarded by reason of injury sustained by the right sciatic nerve, producing a state of partial paralysis of the limb.

CASE VIII—Schinzinger, of Freiburg (*Weiner Mediz-Presse*, Jan 18, 1880). A man standing with his body bent forward, his hands resting on his knees, was buried beneath a mass of falling earth, leaving only his left leg exposed. On this his comrades pulled, in order to extricate him, with such force that he declared "they had pulled his leg off." His lower limbs were strongly divergent, active motion was impossible, passive limited and painful, especially on the left side.

The head of the femur could be readily felt on the pubis, and was returned to its socket without difficulty by Dr Fritsch. Ten days afterward, as the pain and loss of motion in the right limb grew rather worse, an examination was made, and showed a sciatic luxation of that femur, which was reduced under anaesthesia.

The next three cases belong to the second category.

CASE IX—Mr Prichard (*Am Journal of the Med Sciences*, July, 1854, and *Association Med Journal*,

April 21, 1854). A boy, aet 15, a railway wagoner, was "doubled up" under a swiftly running truck, the body of which was only ten inches from the ground. "The knees and toes were inverted, the former closely approximating each other, while the latter rather overlapped one another. The head of each femur was distinctly felt under the glutæi, on the dorsum of the ilium."

Reduction was effected, in the right hip easily, in the left with some difficulty, the patient being under the influence of chloroform. The ultimate result is not stated.

CASE X—Dr Crawford, of Wilkesbarre, Pa (*Am Journal of the Medical Sciences*, October, 1876). The patient, a large, powerful man of about thirty, had a mass of rock fall on him from the roof of a mine in which he was at work. On examination, the head of the right femur was found resting on the dorsum ili, that of the left in the ischiatic notch.

Reduction was effected by manipulation, with anaesthesia, and in ten days the man was able to walk.

CASE XI—This case is derived from the catalogue of the Pathological Cabinet of the New York Hospital, p 154, (1860), No 310. Dislocation of both femora. Patient, a German, 27 years old, was struck, owing to the premature explosion of a blast, by a piece of rock, and received a deep lacerated wound of the arm, and contusion of the loins. He could give no intelligible account of the mode of the accident. On his admission into the hospital a few days after the injury, it was observed that he could not raise his feet, and also that there was some deformity about the left hip, but this latter, he was understood to say, was congenital. The wound in the arm remained in an unhealthy state, and by sloughing and suppuration, finally led to the patient's death, some seven months after the accident, he being confined to his bed during his stay in the hospital. Meanwhile, two months after his admission, the deformity about the hip was found to be due to a dislocation backward of the femur. An attempt at reduction was then made by pulleys, with but partial success, and in a few days the ordinary signs of dislocation into the sciatic notch returned. One month later, the right femur was found to be similarly dislocated. The autopsy showed both femora luxated backward near the sciatic notches. The head of the left femur rests on the dorsum, just above the sciatic notch, the cartilage still remains, but is very thin, while none of the bony parts of the femur are changed in structure or shape. An extensive layer of new spongy bone, perforated by numerous fenestrae, passes down from the dorsum ili over the superior and anterior surfaces of the head and neck to the great trochanter, at which latter point alone it has become united to the femur. It thus forms a capsule for the head, and a long bridge from the trochanter to the pelvis, rendering the femur immovable. New bone, but in smaller quantity, has also been produced from the ischium in front of the sciatic notch, and aids to form a new socket for the head of the femur. The posterior ring of the acetabulum has been frac-

tured off, and there are some small, bony knobs growing from the bottom and lower border of the cavity, but otherwise the acetabulum is unchanged. On the right side, 1st, the head of the bone is more directly in the notch, 2d, there is no fracture of the acetabulum, 3d, the amount of new bone is not more than half that on the left side, and it has united with the head of the femur in several points. With these exceptions, the description of the changes on the left side may be applied, word for word, to those which exist on the right. There is bony union of a fracture of the left transverse process of the fourth lumbar vertebra, showing the blow on the loins to have been a severe one."

I have thought it better to quote this account entire, without any attempt at condensation. An earlier discovery of the luxations, if made, and reduction effected, would scarcely have influenced the result, but might perhaps have lessened the sufferings of the unfortunate man.

The remaining class consists of two cases only.

CASE XII—Sinogowitz (Eve's Remarkable Surgical Cases," p 523). This case is quoted from the *Medical Examiner* for 1838, having been originally derived from the *Premische Med Zeitung*.

A sailor was sitting astride a plank floating on the water, when it was lifted suddenly by a wave in such a manner as to force his back upward against a cross-beam. Sinogowitz detected the character of the luxations at once, the head of each femur being in the thyroid foramen. Reduction was effected without great difficulty by powerful extension.

Recovery was tedious, owing to the severity of the injury to the lumbar vertebrae, the vesical and rectal sphincters were completely paralyzed for three weeks.

CASE XIII—T. C. Barker (*American Journal of the Medical Sciences*, April, 1854). The patient, a young Irishman, æt 19, was walking across a scaffolding, when he slipped, and fell some twenty-five or thirty feet, alighting feet foremost upon a sandy bank in such a way as to force his thighs widely apart, whereby he sustained a luxation of both femora into the thyroid foramina.

Two days afterward the right femur was returned to its place by powerful extension, under chloroform.

Next day, after very great and long continued efforts, anesthesia being induced by a mixture of chloroform and ether, the head of the left femur was disengaged (having been driven through the obturator foramen so that it could be felt within the pelvis by the finger introduced *per anum*), and returned to its socket. Within ten days the man was walking about, and attending to his duties as a waiter on the table.

So far as my knowledge goes no other cases of simultaneous traumatic dislocation of both hips have ever been published than those now given. I am aware that Mr Stanley did, in 1841, relate to the Royal Med-Chirurgical Society¹ a case in which a gentleman, æt, 39, had both femora dislocated upward and backward, but this was from disease of the brain and spinal cord, not from injury. Another case, in which both femora were displaced in the same

direction, but not simultaneously, in a girl of 12 recovering from fever, was reported by Chippendale¹. This, also, is manifestly outside of the scope of the present paper.

For the production of dislocation of one hip the pelvis must be fixed, while the femur is acted upon at its lower portion by some force tilting the head of the bone out of its socket, the Y ligament probably often acting as a fulcrum, and giving the dislocating force an immense advantage in the length of the lower arm of the lever. Or the converse of this mechanism may prevail, the lower end of the femur being fixed, while the pelvis is irresistibly borne forward or backward.

Now, in order that both hips may be luxated, both femora must be fixed, while the pelvis is forcibly moved. And this was the mechanism in all the cases now detailed. When, as it may readily be perceived would generally happen, the force acting on the pelvis does so in a slightly oblique direction, there is a twist given to the lower part of the body, and the head of one femur passes backward, while the other goes forward. In the cases in which the force acts squarely, both femora are displaced alike. The oblique action of the force may be due to the position of the pelvis itself, or to a slight difference in that of the feet of the patient.

It may be noticed that I have not been at pains to discriminate between the posterior luxations, or to the dorsum illi, or into the ischiatric notch, or between the anterior luxations, on to the pelvis or into the thyroid foramen. This is simply because such a distinction is not necessary for my present purpose.

With regard to the diagnosis of the lesions in question, I need only refer to the value of the suggestions made by Dr Allis in his paper, above quoted, that the length of the femora should be compared not only in the extended position, but also when flexed at an angle of 90 degrees to the body. Attention to this point would obviate many mistakes which might otherwise very readily happen, as illustrated by some of the foregoing histories.

A few words only need be said as to simultaneous dislocations of other joints. Rare as are those of the hip, it is even more exceptional for the other articulations to suffer in this way.

The only case within my knowledge, concerning the shoulders, is reported by Caskie². A laborer "was standing on the frame work of a pile driving machine, when the axle of a pulley at the base, upon which the chain which raises the ram, weighing thirty six hundred weight, turns at right angles, broke, and the chain, springing upwards, caught him under one arm, threw him aloft, and he fell to the ground on the other arm." Hence the luxations were not, strictly speaking, simultaneous. Luxation of the right humerus into the axilla was at once detected, and reduced under chloroform. "Subsequently"—exactly how long is not stated—attention was directed to the abnormal position of the elbow of the left arm, which was found to be similarly dislocated. Chloroform was again given, and this luxation easily reduced.

¹ Transactions vol xxiv p 123

² *British Medical Journal*, October 1 1857
British Medical Journal, Nov

Simultaneous dislocation of both wrists has been, I believe, reported to have occurred in a few instances, but I have no references to cite, and should be inclined to question the correctness of the diagnosis, in view of the great rarity of the undoubted examples of displacement of that joint

EXTERNAL MEDIAN PERINÆAL URETHROTOMY, FOR CYSTITIS AND FOR THE REMOVAL OF MORBID GROWTHS FROM THE BLADDER.

BY B. B. BONIACOU, M.D.

[Read before the Surgical Section of the American Medical Association
June, 1883.]

The operation is a median incision of the perinæum, commencing about one inch from the anus, and extending about one or one and a half inches towards the scrotum, according to the depth of the perinæum and size of the subject, and terminating in the membranous portion of the urethra, which should be laid open just in front of the bladder to the extent of one-half to three-fourths of an inch. This is done on a grooved staff, while the patient is in the lithotomy position, the bowels having previously been emptied. The operation is simple, almost bloodless, and rapidly and easily executed. The finger may then be admitted to the bladder, and by counter pressure above the pubes (if the patient is profoundly etherized) every part of the viscus may be made to touch the point of the finger, thereby obtaining most intelligent and thorough examination of the whole interior, and enabling the operator to remove with spoon, forceps or snare any morbid growth capable of being removed. The operation is especially adapted to cases of irritable bladder from vegetation or polypoid growths, and to cases of chronic cystitis from other causes, that have proved incurable by drugs and hygienic methods. The lateral operation, as for lithotomy, was in November, 1850, practiced by Prof. Parker, of New York, for the relief of an obstinate case of cystitis, the result of gonorrhœal inflammation, but this method, much more simple and less dangerous, has not been practiced for this class of cases, I believe, until Sir Henry Thompson, of London, in 1882, recommended and practiced it on a few cases with gratifying results, and his publications induced me to apply it to two very bad cases that came under my care, one of which, F. S., a young man of 28 years, of correct habits and specific history, and who was a strong laboring man, a moulder by occupation, until March, 1882, when he took sick with rheumatism, which lasted two months, and during the sickness his bladder trouble commenced, with scalding of the urine, accompanied by pus and mucus in large quantities. Efforts to expel this brought on distressing tenesmus and protrusion of the bowel, and he was obliged to void his urine every half hour night and day, and often the burning in the penis and straining were so unbearable that he was forced to cry aloud. He came under my care in October, 1882. Irrigation of the bladder and numerous other means were tried, but it was so painful to him that he would not submit to it with any regularity, and then only when under the effects of an

anodyne injection of one or two teaspoonfuls of laudanum. Hyosciamus and camphor, salicylate of soda, bromide of potassium, buchu, uva ursæ and epigæ repens, balsam copaiba, turpentine and other remedies were given internally, while laudanum injections, opii suppositories and ergot were used by the rectum, and the bladder was washed out whenever he could tolerate it with solutions of borax and carbolic acid, chlorate of potassa, bi-carb soda, permanganate of potassa, alum and sulph. zinci, with varying degrees of relief. On March 20, 1883, performed this operation, and found two polypoid growths hanging from the upper and anterior surface of the bladder, which I removed with the finger nail and forceps without producing much hæmorrhage. Bladder was thoroughly washed out, and a drainage tube of large caliber inserted and left in. The tube was retained with some difficulty, owing to the severe contraction of the viscus, but its presence was not painful to the patient, and through this his bladder was two or three times daily irrigated with solution of borax and carbolic acid, and the slime and pus escaped as fast as secreted. The agonizing burning pain in the penis ceased at once, and returned only on a few occasions, when the tube had become obstructed or had slipped down into the perinæal wound. He could sleep a greater part of the night without anodynes, and expressed himself as quite happy compared with his former state. About the middle of April both lower limbs swelled and all the joints were painful, which appeared as a form of rheumatism, and yielded to the internal use of salicylate of sodium. This man is now well enough to walk some distance daily, and his general health nearly restored to normal standard. This drainage tube was kept in use one month, since which time it has not been required, and the bladder empties itself mostly through the natural passage, but occasionally some escapes from the sinus, which is not yet entirely healed.

CASE No. 2.—I. H. N., moulder by occupation, 26 years of age, with no specific history, who for 3 or 4 years had been suffering from irritable bladder, took cold about 8 months ago and had a decided aggravation of his troubles, and 8 months ago married, soon after which he became much worse and was obliged to remain in his bed, being unable to walk on account of the painful straining and burning pain in the penis. He was obliged from this time to pass his urine every hour or oftener day and night and always accompanied by quantities of mucus and pus. He was admitted to St. Peter's Hospital at Albany, New York, and remained there ten weeks, and finding no relief returned to his home in West Troy, and came under my care April 4th, 1883. Irrigation of his bladder had been practiced by himself and attendants since January, 1883, but not regularly on account of the great pain attending the introduction of the catheter, and often suffering four or five hours torment after the operation. I did not succeed satisfactorily with the use of internal remedies, and May 7th, 1883, I performed median external perinæal urethrotomy and found just within the neck of the bladder on his left side a cock's comb-shaped vegetation, which I removed with forceps and my

finger nails, and inserted a drainage tube doubled upon itself, with two eyes in the inner curve of the doubles, and kept in the form of an open loop by a slender brass wire of sufficient temper to keep the knuckle of tube expanded within the bladder, this I found to be self-retaining, and has great advantage over the straight tubes in retaining its position without tying, the loop was curved downward so that it would lay in the cul de-sac behind the neck and siphon off the morbid secretions disposed to collect there. Through this double tube his attendant easily irrigated the bladder from a fountain syringe without pain to the patient, and the relief this man experienced was, as he expressed it, charming. He was wasted to a great degree by his long suffering, but soon regained his appetite and enjoyed sleep at night for hours, whereas formerly he was every few minutes disturbed, and his suffering from the burning pain and tenesmus was pitiable, notwithstanding the use of liberal opiates by the rectum. All that ceased and has not returned, and is now dispensing with the tubes and able to sit up and walk about the rooms. The sinus still discharges urine, but the mucus and other evidences of inflammation have gone.

A singular accident occurred in the treatment of this case. A fortnight after the operation he was taken with a smart hæmorrhage which was controlled by use of cold alum solution and sub sulph of iron, which latter ingredient I should advise not to be again used, as the coagulum formed in the bladder was so hard that I was compelled to break it up and remove it piece-meal with the lithotomy forceps. I hope to be able to report shortly two of the cases of the same trouble, in which I intend to perform the operation.

GERMICIDES —AN EXPERIMENTAL STUDY UPON THE COMPARATIVE VALUES OF ANTISEPTICS

BY HENRY O. MARCY, M.D., BOSTON, MASS.

[Read to the Section on Surgery and Anatomy.]

The deleterious effect of micro-organisms upon wounds can no longer be doubted. The so-called germ theory has passed into the realm of demonstrated fact. The patient labors of scores of very careful investigators during the last generation have slowly elaborated the fact that fermentation is dependent upon a particulate something, omnipresent in ordinary surroundings, and clearly shown that this something belongs to one or another of the varieties of exceedingly minute vegetable organisms, which compensate by number and rapidity of development that which they lack in size. In the study of these minute organisms the important question arises, perhaps second at present to none in the entire realm of the science of medicine, how can we be protected from their deleterious effects?

As the outcome of experimental research, there has been offered to the profession a large number of so-called germicides, and the thought which prompted the laboratory studies that form the basis of this paper was to test the comparative values of as large a number as the time at our disposal would permit. We take pleasure in acknowledging the painstaking

and efficient aid of Dr Samuel N. Nelson, of Cambridge, in the entire series of experiments.

At the outset it is well to bear in mind that one agent may possess a value dependent upon its power to destroy the vital organism, and another upon its power to restrain it from active development, although it has no destructive effect upon the organism itself. Thus, in a certain sense, as a result, this latter group of agents may be classed with the former, as, for example, chloride of zinc, which restrains the bacteria from development, because it acts chemically upon the albumen of the nutrient fluid.

Although the results of the experimental researches to be given, have an indirect bearing upon the medical value of the different agents tested, the primal thought which prompted the investigation was to ascertain the value which such agents may have in their surgical uses, for the destruction of organisms which cause putrefaction in wounds, the agent to be of value must act quickly, and it was therefore held as important that the material to be tested should have only a brief period of contact with the germ-bearing fluid. For this reason a considerable quantity, in each instance three drachms, of the test fluid was carefully mixed with one drachm of the putrefactive material and after a given measured time a small portion of the mixture, two or three drops only, transferred to the aseptic nutrient fluid which was carefully protected from contamination and placed under observation. If bacteria have preserved their vitality during the brief period of contact with the antiseptic, the minute quantity thus taken as seed will rapidly germinate in the nutrient solution and soon putrefactive changes will be apparent.

Thus we know that either the antiseptic was not of a sufficient strength, or not in contact for a length of time requisite, to act as a germicide. By varying the time of exposure and the strength of the antiseptic solution, the experiment is repeated, until the minimum time and strength have been ascertained, which are requisite to destroy the bacteria in the material used. Of course each test was verified by careful microscopic examination in order to determine the presence or absence of micro-organisms, and when found, their character and condition.

The first series of experiments which were undertaken more than a year ago were made as follows. The aseptic solution was prepared by boiling several small pieces of meat with a large quantity of water in a glass flask, purified by exposure to the flame of an alcohol lamp. This flask was stopped with a rubber cork perforated by two glass tubes for the convenience of decanting. The tubes were bent downwards and the ends were protected with carbolized gauze. The cork and tubes were carefully cleansed beforehand with carbolic acid. The resulting solution, if made with lean meat settles clear, if the meat is fat the solution is rendered cloudy by fine oil drops and must be prepared again. The solution thus in a proper condition was placed under a bell jar where it remained indefinitely aseptic. The combined material is placed in a test tube protected by heat and this

fied which rests upon a carbolized cushion. In this way it is subject to easy inspection and is protected from all external agencies.

It must be borne in mind that these experiments differ essentially from those of Dr Koch, now widely known, and also from those equally interesting and instructive of Dr Sternberg, recently published in the April number of the *American Journal of Medical Sciences*. Here the test solutions are made of given strength and into these the bacteria under observation are introduced and allowed to remain. In Dr Sternberg's experiments the standard of time chosen was two hours, in our own from five seconds to five minutes.

Although, I think the former methods perhaps the best for certain deductions which may be safely drawn therefrom, this difference of treatment of the various substances must be held in consideration in the comparison of the results obtained. In each instance the microscopical examination was made, and the results noted before reference to the substance being tested, in order that there might be no preconceived opinion of the value of the antiseptic to modify in any way the judgment. Uncharged aseptic tubes accompanied every experiment to note the accuracy of manipulation and these remained sterile. In each series a like quantity of septic solution was placed under test which invariably germinated. Thus we believe the experiments are in the main trustworthy.

Instead of continuing the tests at a uniform heat, nearly that of the blood, in a culture chamber, it seemed to us wiser to judge of their developments at the temperature of an ordinary room, i. e. about 70° F. since it is at this temperature that germs are being constantly reproduced prior to their invasion of the human organisms. It is true they germinate more rapidly at a higher temperature. Many experiments have shown that the spores of these microscopic plants withstand heat and cold to a remarkable degree, yet in their germinating state they are quite sensitive to considerable changes of temperature. In one set of experiments, during the winter, a cold night ruined the entire series. In the larger portion of the experiments the manipulation was made in the spray of one to twenty carbolic acid, so that atmospheric germs might the less endanger the safety of the fluids during the transfer. The micro-organisms were from beef-tea or other nutrient fluids "spoiled" by standing uncovered in a warm room and invariably contained micrococci, bacteria termo and vibrios.

The interesting experiments of Dr Sternberg, furnished the American Association for the Advancement of Science, 1881, caused us to adopt his method of manipulation, which is much easier and safer. The bulbs used by Dr Sternberg are not very unlike those used by Dr Roberts in his experiments published in 1874. They are made from glass-tubing four-tenths of an inch in diameter, and will contain from one to four drams of fluid. With a little practice they are easily manufactured by one who is not an expert. After they have been partly filled with the nutrient fluid, they are sealed in the flame, and

their aseptic condition rendered more certain by boiling in a strong salt solution for a considerable period, even for twenty-four hours. They are then put aside for observation. If aseptic, and they rarely fail to be, they may await use any convenient period. The end of the tube is broken when desired to be charged with the test solution, and again sealed, numbered and placed under observation. A slight film of albumen is frequently noticed upon the bulbs.

Inspection of the tables shows that the substances under observation which possess a germicidal power have in many instances a different effect over the different organisms. In most, however, the micrococci evince a superior and remarkable vitality. In a number of the tests where the fluid remained clear there were found a few inactive micrococci. These have been noted as sterile, and are presumably the organisms introduced, acted upon by the reagent used. In a larger number, the fluid remaining clear, a few active cells have developed, and yet, only in a minute fraction of possibility of their healthy growth in the given quantity of nutrient fluid, although, as may be seen by reference to the tables, some of the tests were under observation two or three months.

It cannot be doubted that many of the articles here tested and marked, failed to possess decided germicidal qualities. By failure is meant that during the very brief period in which they were allowed contact they did not destroy the germinating power of the "seed" fluid.

ALCOHOL, 95 Exposed from one to five minutes, did not prevent the fluid from becoming turbid, and both the micrococci and bacteria termo were actively developed.

ACID BORACIC, 1-10, in most of the tests showed a restraining power of development, and yet active cells were usually present. As a germicide it is of little value, and yet the experiments show that the widespread confidence in its clinical use is not altogether without foundation.

BORO GLYCERIDE, 1-20 This compound has been highly recommended abroad. Exposures of from one to five minutes gave failure in each instance.

ACID-CARBOLIC The many and varied experiments with this reagent, relied upon most of all by surgeons the world over, show that there are decided limits to its germicidal power, 1-40, or over two per cent solution generally fails to destroy the micrococci, and the 1-20 solution, although usually effective, should be in contact for at least one or more minutes to be trustworthy. In one instance the micrococcus of gonorrhoea remained active after a thorough mixing with a 1-20 solution for some hours, and when placed in an aseptic generating fluid reproduced rapidly. Dr Sternberg states "Carbolic acid failed to destroy the micrococcus from pus in the proportion of five per cent, but this amount was fatal to the septic micrococcus." He further states, "that carbolic acid to be trustworthy as a *disinfectant* should be used in not less than five per cent for a period of two hours, for it is necessary to be on the safe side, and we do not know at present whether all of the pathogenic bacteria, hypothetical or demonstrated, form spores or otherwise." Dr Koch states, "that

the results of his experiments with carbolic acid were entirely unexpected," and says, "One is accustomed to consider a two per cent solution as entirely trustworthy for the destruction of micro-organisms in a few seconds or minutes" He further adds, "that the surgeon who washes his hands and instruments with a solution of this strength and trusts thereby for the protection of his patients, would certainly endanger them to the infection from the bacillus of splenic fever and probably other organisms" To an over-confidence in, and a careless use of, carbolic acid in surgery I believe may be traced many failures and subsequent scepticism as to the value of antiseptic surgery

CALCIC CHLORIDE, 1-10 The limited experiments teach that it possesses a power to restrain a rapid germ development

CHLORIDE OF ZINC, 1-12 Exposed from five seconds to five minutes gave a clear solution and only a very few active micrococci It is trustworthy at this strength and probably in weaker solution

OIL OF EUCALYPTUS, 1-100, 1-200 Time five seconds to two minutes In nearly all the bulbs the fluid was turbid and micrococci and bacteria were found in limited numbers It is not a powerful germicide, but like Listerine has its value chiefly in its aseptic qualities Bucholtz showed by his experiments that it prevented putrefaction in strength of one part to 660, while carbolic acid to secure the same result required a strength of one to 200 Mr Lister has given it a careful trial It is not poisonous and quite unirritating, which for a variety of purposes is a very decided advantage over carbolic acid

HYDRARGYRUM BICHLORIDUM, 1-1,000, 1-1,500, 1-2,000—This entire series of seventeen tests show a most remarkable germicidal power, even the weakest solution exposed for only ten seconds produces sterility, and the entire series gave a uniformity of result not attained by any other re-agent It furnishes a possible explanation of the confidence of our fathers in their clinical results from the use of mercurials in certain diseases, and to-day clearly ranks first of all the known re-agents as a disinfectant The danger from its poisonous qualities, must of course, be carefully guarded against but with proper precautions it may be safely adapted to a wide range of uses, surgical and otherwise

LISTERINE, FROM LAMBERT & Co, ST LOUIS This preparation is "the essential antiseptic constituent of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis in combination Each drachm contains two grains of benzo-boracic acid" Its germicidal power is less than carbolic acid solution 1-20 as thus tested, and yet it shows a decided restraining power over the development of micro organisms Exposed for a longer period it may be accounted as a trustworthy agent It is safe for internal administration, and the laboratory experiments of Dr Deems shows that it possesses remarkable aseptic qualities, that is, power to prevent rather than to destroy fermentation

ACID SALICILIC, 1-100, 1-200 The tests were for a shorter time than the average, the longer being only two minutes, but, as tabulated at these strengths, seventy-five per cent were failures However, there is

observed a marked restraining power to the active development of micro organisms It acts more slowly than could be desired, although in chemical formula ($C_7 H_6 O_3$) so near like carbolic acid ($C H_3 O_3$) does not compare favorably with it as a germicide

"PLATT'S CHLORIDES" This well advertised disinfectant has been commended by a long array of names of the profession well known in America Exposed from five seconds to four minutes each test was a complete failure The micrococcus and bacteria developed actively and decomposition soon ensued

QUININE SULPHATIS, 1-10 Unfortunately, only a single test was made of quinine This, exposed for five minutes, at the expiration of eighty four days, gave as a result a clear fluid, with a considerable sediment, but this consisted of many mycelium threads and blood cells, but no micrococci or bacteria Since we are familiar with its primal value in certain of the zymotic diseases, it deserves, and doubtless will soon receive, a much more minute examination in order to determine its germicidal properties and value

THYMOL, 1-500, 1-1000, 1-1500 Ten experiments gave only one success, and this with a solution of 1-500 exposed five minutes The active development of micro-organisms soon rendered the solutions turbid It is evident from this that thymol has justly fallen from the high position some years since accorded to it as an antiseptic

BALSAM PERU, 1-2, ALCOHOLIC SOLUTION In only four tests from one to five minutes, there was found a uniformity of result The fluid remained clear and there were only a very few active micrococci, no bacteria, and like turpentine, balsam of Peru appears to be a very valuable and safe agent for surgical purposes It shows also that the extensive use of it in the treatment of wounds by the natives of South America, is probably founded upon correct observation

TURPENTINE Full strength and diluted with equal quantities of alcohol In the first series all failed, but the turpentine mixed very imperfectly with the foul solution In the second series the success is exceptional, for even exposed thirty seconds the fluid remained completely sterile Professor Koch's experiments show that turpentine is a very efficient germicide One source of its value may be its power to absorb oxygen which it converts into ozone The pine forests of the South, even in close proximity to rivers and swamps, the home of chill and fever, have long been known and resorted to because of their freedom from malaria Further experiments with this promising agent should be undertaken to ascertain its full surgical value

GLYCERINE has been recommended by a number of writers as an antiseptic dressing for wounds Dr Park, from his personal experience recommends it highly¹ On account of its well known preservative qualities it would seem to be of value in wound treatment As stated, fermentation soon developed and the micro-organisms were numerous and active

BETA-NAPHTHAL, 1-10 This is a recent product of the petroleum series, and comes from Germany Exposed for five minutes the solution remained sterile

¹ Chicago Medical J

Ex: October, 1883

NAPHTHALIN, 1—20 This product has also been recently introduced by Lucke and Fischer, of Strasbourg, as an efficient germicide. Dr George R. Fowler, of Brooklyn, has published a carefully-prepared paper upon its uses and merits¹. It belongs, like the former, to the petroleum product, is a white crystalline body, is quite inexpensive, and claimed to be without danger. The tests were from thirty seconds to five minutes. In all the fluid remained clear, and only a few active micro-organisms appeared. It would seem to be a trustworthy and valuable addition to the surgeon's armamentarium. Surgical dressings made from it are easily prepared. Dr Fowler's admirable article is worthy of careful study.

BICROMATE OF POTASH, 1—50, 1—100 Exposed from thirty seconds to five minutes. In each test there were a few active growths, but its restraining power in controlling development was clearly manifest.

PERMANGANATE OF POTASH 1—50, 1—100 The results under exposure of five minutes and less, were all failures, although the bacterial development was only in limited extent, and the results with open tubes and bulbs were quite similar. This is in marked contrast with the experience of Dr Sternberg, who places this re-agent as second on his entire list, and trustworthy in one part to 800.

SALT has been recognized from time immemorial as the great universal preservative of animal tissues from putrefaction. This it does in part by its absorption of fluid from the tissues, but chiefly by its aseptic qualities. It is a well-known fact that when meats have begun to undergo putrefaction the process is restrained very imperfectly by the use of salt and other means are commonly resorted to. A saturated solution in hot water was used in the testing. Exposure from five seconds to two minutes.

The fluid early became turbid, and micro-organisms developed rapidly. It is evidently not of much worth as a germicide, and must possess in surgery a purely hypothetical value.

IODOFORM It is worthy of remark that tests were attempted with this re-agent, but, owing to its insolubility, this substance was found unfit for the class of tests here reported.

For a long period I have used iodoform in surgical dressing with satisfactory result. Recently, in the treatment of a deep phagedenic chancre, the sore was carefully cleaned, and refilled daily with a free quantity of iodoform. The improvement was not satisfactory, and at the fifth day microscopical examination showed abundant active micrococci, with everywhere crystals of iodoform interspersed. Its insolubility is a very evident objection.

In conclusion, we must repeat that we offer our observations to the profession only as an incomplete study, upon a subject beset with many difficulties. The field is large, and the labor involved great, although of intense interest, and of an importance of which the present only offers a possible faint indication. The splendid researches of Prof Koch, under the authority and by the aid of the German government, furnishes a magnificent monument of painstaking labor.

Our own government has done much for surgery, through her corps of distinguished laborers belonging both to the army and the navy. May the good work be furthered by the selection of one like Dr Sternberg (who has shown such exceptional fitness for the task) for this purpose, and suitable aid furnished for the carrying on of elaborate scientific investigations in a direction of such value and great promise.

The following tables show the details of the experiments alluded to in this paper.

¹ Annals of Anatomy and Surgery May 1883

SERIES I—TEST TUBES

SUBSTANCE TESTED	Strength of Solution	Duration of exposure	Duration of Test Days	Condition of Fluid	Scum	Sediment	Presence of Micrococci	Activity of Micrococci	Presence of Bacterium Termo	Activity of B. Termo	Presence of Vibrio	Activity of Vibrio	Success or Failure	REMARKS
Acid Boracic	1 10	5'	62	turbid	mycelium growth	Much	M	active	B	active			F	
Acid Carbolic	1 40	10"	14	slightly turbid			M	active					F	
"	1 40	10"	14	slightly turbid		slight sed	M	active	B	active	V	active	F	Doubtfully sterilized
"	1 40	10"	14	turbid	scum	sed	M	active	B	active	V	active	F	Doubtfully sterilized
"	1 40	10"	14	turbid		slight	M	active					S	Nothing microscopically
"	1 40	30"	14	clear		slight	M	active					F	
"	1 40	30"	14	slightly turbid		slight	M	not active					S	
"	1 40	30"	14	clear		slight	M	not active					S	
"	1 40	1'	14	clear		slight	M	active					F	
"	1 40	1'	14	clear		slight	M	active	B	active	V	active	F	Doubtfully sterilized
"	1 40	1'	14	turbid	scum	slight	M	active	B	active	V	active	F	Doubtfully sterilized
"	1 40	1'	14	clear	scum	slight	M	active	B	active	V	active	S	Nothing microscopically
"	1 40	2'	84	clear			M	active	B	active	V	active	F	Doubtfully sterilized
"	1 40	2'	14	turbid	much scum	much	M	active	B	active			F	Doubtfully sterilized
"	1 40	2'	14	turbid	mycelium	much	M	active	B	active			F	Doubtfully sterilized
"	1 40	2'	14	turbid	scum	much	M	active	B	active			F	Myco-derma cells
"	1 40	2'	14	slightly turbid		much	M	active					S	Nothing microscopically
"	1 40	3'	84	clear									S	Microscopically—a few red blood cells
"	1 40	10"	14	clear		very slight							S	Nothing microscopically
"	1 30	10"	14	clear		very slight							S	Microscopically—a few granules and shreds
"	1 30	30"	14	clear		sed							S	

SERIES I—TEST TUBES—*Continued*

[illegible]

GERMICIDES

SERIES II — BULBS

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SUBSTANCE TESTED	Strength of Solution,	Duration of Exposure	Condition of Fluid	Date Turbidity First Noticed	Scum	Sediment	Duration of Test Days	Presence of Micrococcus	Activity of Micrococcus	Presence of Bacterium Termo	Activity of B. Termo	Presence of Vibrio	Activity of Vibrio	Success or Failure	REMARKS
Acid Boracic	1 150	1	clear	5	scum	slight sed of albumen	6	few M	active	few B	active	few V	active	F	Mycoderma cells
"	1 150	2	turbid	3		"	8	M	active	B	active		active	F	
"	1 150	5	turbid	2		"	9	M	active	B	active		active	F	
"	1 10	5	clear			"	9	few M	active	few B	active	V	active	F	Mycoderma cells
"	1 10	30	clear			"	9	few M	active	few B	active		active	F	
Acid Carbolic	1 10	1	clear			"	26	M	active	B	active	V	active	F	Nothing microscopically
"	1 40	10	slightly turbid	6		"	27	M	active					S	
"	1 40	30	slightly turbid	9		"	27	M	not active					S	
"	1 20	5	clear			"	27	few M	active	few B	active			F	
"	1 20	10	clear			"	9	M	active	B	active	V	active	F	Mycehem
Acid Salicylic	1 200	30	turbid	8	scum	"	8	M	active	B	active	V	active	F	
"	1 200	1	turbid	3		"	8	M	active	B	active	V	active	F	Mycoderma cells
"	1 200	2	turbid	1		"	12	M	active	B	active	V	active	S	Microscopically—a few red blood cells
"	1 100	5	clear		scum	"	9	few M	active					F	
"	1 100	30	clear			"	9	M	active	B	active	V	active	F	Mycoderma cells
"	1 100	1	clear			"	8	M	active	few B	active	V	active	F	
Alcohol	1 100	1	turbid	1	scum	"	6	M	active	few B	active		active	S	Liquid iridescent
"		2	slightly turbid	3	scum	"	8	M	active					S	Liquid iridescent
"		3	slightly turbid			"	5	M	active					S	Liquid iridescent
Balsam Peru	1 2 alc	1	clear			"	5	M	active					S	Liquid iridescent—fat globules
"	1 2 alc	5	clear			"	5	M	active					S	Liquid iridescent—fat and mycelium
"	1 alc	1	clear			"	5	few M	active					F	
"		2	clear			"	5	M	active					S	
Beta Naphthol	1 10 alc	1	turbid	5		"	5	M	active					F	Slight precipitate of albumen at once
"	1 10 alc	5	clear			"	5	M	active					F	—microscopically—a few red blood cells
"	1 alc					"	7	M	active	B	active	V	active	F	
Boroglyceride	1 20	1	clear			"	3	M	active	B	active			F	
"	1 20	3	turbid	1		"	2	M	active	few B	active			F	
"	1 20	5	turbid	8		"	8	M	active	B	active			F	
Glycerine		1	slightly turbid	5	scum	"	6	M	active	few B	active			F	
"		2	slightly turbid			"	8	few M	active					S	
"		5	slightly turbid			"		M	not active					S	Microscopically—a few red blood cells
Hydrargyri Bichloridum	1 2000	10	clear			"	15	M	active					S	Microscopically—a few red blood cells
"	1 2000	30	clear			"	15	few M	not active					S	
"	1 1000	5	clear			"	15	M	active					F	
"	1 1000	10	clear			"	24	M	active					S	Microscopically—a few blood cells
Listerine	1 2	10	slightly turbid	9		"	16		active					F	
"	1 2	10	clear			"	24	few M	active	B	active	V	active	F	
"	1 2	30	slightly turbid	6		"	15	M	active	B	active			F	Nothing microscopically
"	1 2	30	slightly turbid	6		"	24	M	active	B	active			F	
"	1 2	1	very turbid	8		"	15	M	active	B	active			F	Microscopically—a few red blood cells
"	1 2	1	clear	6		"	15	M	active					F	
"	1 2	1	slightly turbid	6		"	15	M	active	B	active			F	
"	1 2	2	slightly turbid	6		"	24	M	active	B	active			F	
"	1 2	2	slightly turbid	6		"	27	M	active	B	active			F	
"	1 2	2	slightly turbid	6		"	11	M	active					S	Cry stals precipitated at once
"	1 2	2	slightly turbid	6		"	24	few M	active					F	Cry stals precipitated at once
"	1 2	2	slightly turbid	6		"	7	M	active					F	Cry stals precipitated at once
Naphthalin	1 20	30	clear			"	7					few V	active	F	Cry stals precipitated at once
"	1 20	1	clear			"	7	M	active					F	Cry stals precipitated at once
"	1 20	5	clear			"	7	M	active	few B	active			F	Cry stals precipitated at once
"	1 20	5	clear			"	7	M	active					S	Cry stals precipitated at once
"	1 10	5	clear			"	7	few M	active					F	
"	1 10	30	clear			"	7	M	active					F	
"	1 10	1	clear			"	8	few M	active	few B	active			F	
Oleum Eucalyptus	1 200	30	turbid			"	8	M	active	B	active			F	
"	1 200	1	turbid			"	3								

SEERIES II —BULBS —Continued

SUBSTANCE TESTED	Strength of Solution	Duration of Exposure	Condition of Fluid	Date Turbidity First Noticed	Scum	Sediment	Duration of Test Days	Presence of Micrococcus	Activity of Micrococcus	Presence of Bacterium Termo	Activity of B. Termo	Presence of Vibrio	Activity of Vibrio	Success or Failure	REMARKS
	1 200 alcohol	2	turbid	3		slight sed of albumen	8	few M	active	few B	active			F	
	1 100 alcohol	30	turbid	4			6	few M	active	few B	active	few	active	F	
	1 100 alcohol	1	turbid	3			8	M	active			few V	active	F	
Potassii Bichromas	1 50	1	clear				7	few M	active	few B	active			F	
‘	1 50	2	clear				7	M	active					F	
	1 50	5	clear				7							S	Microscopically — a few red blood cells
	1 50	5	clear				7							F	
Potassii Permanganas	1 100	1	turbid	4	scum		4	few M	active	few B	active			F	
‘	1 100	5	clear		scum		7	M	active					F	
	1 50	30	clear				7	M	active					F	Microderma cells
	1 50	2	turbid	2			2	M	active	few B	active	V	active	F	
Salt	satur ed solution hot water	5	turbid	3			8	M	active	B	active	V	active	F	
		30	turbid	3			8	M	active	B	active	V	active	F	
Thymol		1	turbid	2			8	M	active	B	active	V	active	F	
		2	turbid	2			8	M	active	few B	active			F	
	1 1500	30	turbid	2			4	M	active	B	active			F	
‘	1 1500	2	turbid	1			2	M	active	B	active	V	active	F	
	1 1500	5	turbid	1			2	M	active	B	active			F	
	1 500	15	turbid	2			7	M	active					F	
Turpentine	1 500	30	clear				7	M	active	B	active			F	
	1 500	2	turbid	1			2	M	active	B	active			F	
		5	turbid	6			15	M	active	B	active	V	active	F	Imperfectly mixed
“		10	turbid	6			15	M	active	B	active			F	Imperfectly mixed
		30	turbid	6			15	M	active	B	active			F	Imperfectly mixed
	1 2 alcohol	30	clear				16							S	Microscopically — a few red blood cells
“	1 2 alcohol	1	clear				16							S	Microscopically — a few red blood cells
	1 2 alcohol	2	clear				16							S	Mycelium
Zinci Chloridum	1 12	5	clear				7							S	Microscopically — a few red blood cells
‘	1 12	30	clear				7	M	active					F	Doubtful if added the two drops to this bulb
	1 12	1	clear				7	M	active	few B	active			F	
	1 12	15	turbid	3			4	M	active					F	
Sterilized Bulb			clear				20							S	Microscopically — a few red blood cells
Plus Foul Solution			clear				20							S	Microscopically — a few red blood cells
			turbid	2			20	M	active	B	active	V	active		

ON A FORM OF INGUINAL HERNIA LIABLE TO BE OVERLOOKED

BY A H WILSON, M D , SOUTH BOSTON, MASS

[Read to the Surgical Section of the American Medical Association at Cleveland, June 1883]

I do not claim to have discovered any new form of hernial displacement, or to have devised any new operation for its radical cure. Indeed, to my mind, most of the so called radical cures are either slight modifications of long established operations, or are old operations that have fallen into disuse revived. What I do claim, however, Mr Chairman, is this. That a form of hernia recognized by older surgeons as obscure and difficult of diagnosis, and as very frequently resulting in death because of such failure to ascertain its existence, is as frequent to-day as in the

days of Cooper, Pott, and Scarpa, and yet most of the present writers and teachers say but little about its true character and importance. Bubonocoele or incomplete external inguinal hernia begins by the protrusion of the viscera at the internal abdominal ring over the spermatic cord into the inguinal canal. As it does not overcome the resistance of the lower opening, the tumor is retained in the canal. The cremaster muscle, the spermatic and epigastric vessels have the same relative position in this as in the complete external inguinal hernia, that is, the fibers of the former are spread over the peritoneal sack on its anterior aspect, the spermatic vessels run along its posterior surface, and the epigastric artery is found on the inner or pubic side of its mouth. The tumor is covered externally by the aponeurosis of the external oblique muscle of the abdomen, its opposite or internal surface rests on the fascia transversalis.

It is bounded below by the crural arch, above by the inferior margin of the internal oblique and transversalis muscles, of which the fibers are more or less raised. The resistance which the aponeurosis of the external oblique and the fascia transversalis may be expected to oppose to the development of a tumor in the narrow space left between them and the ready passage of the protrusion as it increases through the external abdominal ring, will account for the incomplete inguinal hernia being usually small. The protruded parts, however, although bound down by the external oblique aponeurosis so that they do not constitute an external swelling, gradually separate the sides of the inguinal canal, which yields toward the abdomen and extends sometimes considerably below the limits of that canal. Hence, on operation or dissection, we find the hernial tumor larger than we should have expected. The bubonocoele may be either an enterocoele, an epiplocele or an entero epiplocele, and if the latter exist, and be composed chiefly of omentum, with only a part of the caliber of the intestine included in the tumor, the symptoms of its presence may be so very mild in character as to fail to attract the attention of the patient until some sudden violence develops it into a complete inguinal hernia, or the patient comes to his physician complaining of pain in the umbilical region, possibly of a severe character, requiring large doses of morphia to relieve, and the surgeon, if he suspects rupture, examines the inguinal region and finds a small hard tumor just above the middle of Ponpart's ligament, which he considers an enlarged inguinal lymphatic gland, and then turns to search for some other cause for the symptoms. Should vomiting of a stercoraceous character supervene, he would be likely to re-examine, and even then a good surgeon may fail in his diagnosis.

A medical friend practicing in the vicinity of Boston has kindly furnished me with the notes of a case occurring in his own practice which possesses many points of interest in the consideration of bubonocoele, which I will read.

G B, aged 63, married, medium habit, health generally good, shoe cutter by occupation, was attacked suddenly about 3 P M, July 31, 1878, with pain in abdomen, was called to see him some seven or eight hours later, and found him suffering from pain, severe in character, and rather above the umbilicus, together with nausea and vomiting. He said he had suffered several times from like attacks, but that a hypodermic injection of morphia always gave prompt relief. He was in bed and undressed, and I accidentally saw a left side truss lying in a chair. I inquired as to hernia. He replied that he had worn a truss for it several years, and that it had given him no trouble, and was not troubling him at that time. Upon my attempting to examine for myself he was irritable, and refused to permit an examination to ascertain as to the presence or absence of hernia. He pettishly replied that he had been in the same condition before, and that an injection of morphia beneath the skin always relieved him, and that was all he wished to have done. I injected the morphia as he wished, and, as he soon grew comforta-

ble, came away, was called again, however, in about five or six hours, and found him suffering as before. I again asked for an opportunity to make an examination. He examined himself a moment, and then assured me that there was neither bunch, pain or soreness in that region.

I repeated the injection of morphia, which gave him relief from pain, and came away. August 1st, he remained in bed, suffering at times, and requiring the subcutaneous injection twice or thrice during the day. No marked symptoms, except pain near the umbilicus and vomiting. During the night vomited fecal matter in large quantities several times. At my morning call, August 2, found him in pain and suffering from nausea. Pulse and temperature increased. Mentally clear and even playful. I again asked permission to examine, but he refused with much impatience. He, however, examined himself, and insisted that there was no trouble in the inguinal region, thereupon, without any suggestion from the patient or his family, I called his former medical attendant in consultation, but the patient would grant him no liberties that he had not granted me. Hence we were in doubt as to the pathology of the case. Pain and vomiting still continued, but no especial tenderness or meteorism of abdomen. Febrile symptoms, together with prostration, continued till August 6th or 7th, when pain and vomiting ceased. He was hopeful and confident during his whole sickness. During the 8th and 9th sank and died, nine and a half days from commencement of the attack.

Autopsy August 10, twelve hours after death. External examination furnished no suggestions. Examination of abdominal cavity showed close to left internal inguinal ring a portion of ilium about two inches in length, completely sphacelated, also the internal surface of ring was gangrenous to the depth of from one-sixth to one eighth of an inch. That a loop of intestine about an inch in length had entered the internal ring, become strangulated, passed on to mortification and become spontaneously reduced, admitted of no doubt.

Here, then, is a case of strangulated bubonocoele resulting in mortification and death, where there is an entire absence of pain in the inguinal region during the whole course and progress of the disease, and if we are to rely upon the statement of the patient there was neither bunch, pain or soreness in the inguinal region. I think it fair, however, to assume that if any tumor was present in the groin it must have been quite small. Had my friend not seen the truss would he naturally, from the symptoms, have suspected hernia before the appearance of the stercoraceous vomiting? I think not.

Sir Astley Cooper gave the first clear description of incomplete external inguinal hernia. "This tumor," says he, "occurs much more commonly than is generally supposed, for I have frequently found it in the dissection of bodies of persons who have never been suspected of laboring under the disease, nor ever wore a truss. When strangulated, these cases more commonly fall under the care of the physician than the surgeon, for, as the patient himself is not conscious of having a tumor at the groin, the

symptoms of strangulation are ascribed to inflammation of the bowels, without a suspicion of the true cause having been excited, and the patient dies, as is supposed, of idiopathic peritonitis."

He also describes the following case. A man was admitted into St. Thomas's Hospital with symptoms of strangulated hernia, which for five days had been treated as a case of simple inflammation of the bowels, without a suspicion of the true cause having been excited. On examination a fullness could be perceived above Poupart's ligament, and when this was compressed, a small tumor like the end of the little finger, appeared at the abdominal ring, which again receded to its former place on withdrawing the pressure, pain was felt at the same time and in coughing much uneasiness was produced at that spot. As five days had elapsed between the first accession of the symptoms and his admission into the hospital, the performance of an operation afforded but little prospect of success, for besides vomiting he had been troubled with a hiccup for forty hours, his belly was sore on pressure, and his pulse so small as scarcely to be distinguished. However, as it was the only possible chance for recovery, the operation was undertaken. On cutting down to the tumor, it was found to be produced by a hernial sack an inch and a half long, and when this was opened about half the circumference of one of the small intestines was found to be contained within it, together with a quantity of sanious serum. The stricture which existed an inch and a half above the abdominal ring was then divided. The intestine was discovered, but the point of the knife having accidentally touched one of its superficial veins, the blood issued from it freely, proving that the bowel was in a fit state to be returned, which was accordingly done as soon as the bleeding ceased. The patient had stools in twelve hours, and although he afterward suffered from a severe purging, he ultimately recovered. Here is a report of a case occurring in the days of Sir Astley Cooper, and under his own observation, and what reason have we to believe that the same errors in diagnosis are not made to day, Prof. Agnew says in the first volume of his work on surgery, page 468, "that in concealed inguinal hernia, a portion of the intestine may be strangulated at the internal ring so small as to render it impossible for the surgeon to discover its existence either by sight or touch. I have witnessed a number of deaths from this form of hernia which have been treated as cases of colic." I think we may fairly conclude that notwithstanding the many great improvements that have been made in modern surgery, we fail to day to impress upon the medical student, the liability of its occurrence and the great danger of excluding the possibility of its existence, because *all* the ordinary symptoms of hernia are not present. I am surprised that so many of the authors of the recent works on surgery should dismiss this, to my mind, important form of inguinal hernia, some with barely a reference and others with the briefest sort of an allusion. The question naturally arises that having taken the ground that this form of disease is frequently overlooked what is the remedy? I answer that being fully alive to the pos-

sibility of its existence and a knowledge of its obscurity and great difficulty of detection, will have the effect to diminish largely the number of deaths from strangulated hernia, treated as colic or idiopathic peritonitis. The student should be taught where to look for a slight hernial protrusion through the inner ring. He should be told of the changes and liability of mistaking it for an enlarged inguinal gland, of the possibility of the enlarged canal protruding into the abdominal cavity, with but slight or no external swelling, of the necessity of carefully compressing both sides of the abdomen.

These are a few of the essential points to be inculcated that present themselves to my mind. I desire here to speak of another point in connection with the formation of the hernial sack, that seems to be almost forgotten, and that is to call attention to the *importance* of remembering that the portion of peritoneum employed to form it may be represented by a plain membrane about three inches in diameter, more or less, according to the amount of protrusion, and the circumference of this portion of peritoneum would be about ten inches. Now when the sack is formed the fundus is covered with a single layer of peritoneum. The periphery folded and puckered like the mouth of a closed purse would be formed at the inner ring, and the greater the amount of protrusion the more folding and the deeper the folds at the internal ring. This crowding of ten inches of peritoneum into the space of one inch would become an important factor in producing strangulation at the inner ring, and the pressure of these folds of peritoneum against each other, under such circumstances, would rapidly result in adhesion, and render the strangulation of the intestine dependent, to a partial extent at least, upon the peritoneal ring so formed. Is it safe, then, to simply divide the outer band of stricture and return the sack and its contents into the abdominal cavity? My own opinion is that in these days of antiseptic surgery when wounds of the peritoneum are not considered dangerous, that the plan advocated and followed by Bangs, of England, Marcy, of Boston, and others, viz. The ablation of the sack should be followed, the fissure in the peritoneum so produced closed with carbolized animal ligatures, the pillars of the inner ring approximated and held in position by the same material, and the external wound closed with antiseptic precautions.

POST-PARTUM POLYPOID TUMORS

BY HENRY G. LANDIS, M.D., COLUMBUS, OHIO

[Read to Section on Obstetrics and Diseases of Women June 1883.]

The title of this paper is intended to indicate that its subject-matter is concerned with tumors, 1st, which resemble polypi, more or less, and 2d, are found only after delivery. I will further restrict it to labor at full term, since the conditions after abortion differ clinically in some respects, and open too wide a field.

The subject is one of great practical interest. Not infrequently the physician is accused of having left a piece of the after birth behind—of not completing the delivery. A patient has secondary hemorrhage or

septicæmia, in the course of which are discharged or removed masses of fleshy or membranous consistence, which the old women or an unfriendly colleague pronounce to be "a bit of after-birth," greatly to the detriment of the attending physician

I believe that, as a matter of fact, the detention of a fragment of placenta after labor at full term is a rare occurrence, though perhaps the same could not be affirmed of the membranes. I once witnessed a case in which the perinæum had suffered a complete laceration. The accoucheur, apparently excited by the accident, immediately introduced his hand into the womb, and, with a clutch, brought away about one-half of the placenta, leaving the remainder for me to extract, not without difficulty. Such ignorant brutality is certainly uncommon, and without it, the placenta is generally, sooner or later, expelled entire. The conditions which, no doubt, are often mistaken for this accident are as follows:

1 Attached fibrinous coagula, the free polypous hæmatoma of Virchow. Slight oozing of blood may take place from a sinus imperfectly closed by a thrombus. The blood clots form gradually, and in somewhat concentric layers, until we have a tumor which feels very like a polypus, and hard enough to bear considerable handling. According to Schroeder, "a peculiar roughness or too great projection of the placental insertion into the uterine cavity appears chiefly to predispose to their formation." He mentions, however, having seen two cases in which there was no question of excessive roughness. The firm structure and laminated appearance of these slowly formed clots are no doubt occasionally misinterpreted by those who examine them hastily. Inasmuch as these blood-polyps have been found under many and varying circumstances, we are at present unable to determine exactly even the principal predisposing causes. A remarkable feature in their clinical history is that for quite a long period, comparatively, their presence is unattended with harm. Our attention is first called to their existence by a sharp attack of secondary hæmorrhage. This may occur in the first week, but has been postponed to the third week after delivery. The hæmorrhage may be immediately fatal, or, if timidly treated, may recur to a dangerous extent. Septicæmia is also apt to follow the hæmorrhage.

Unless the patient succumbs to the first flow of blood there is little to fear from these tumors. Their removal is not difficult, and is usually followed by prompt recovery—which will be expedited by the free use of iodized intra-uterine injections.

2 A priori, fibrinous clots might be expected to form more frequently when a fragment of placenta adheres to the uterine wall.

The authors who mention the subject seldom detail cases, and I am not sure whether direct observation or inductive reasoning has guided them in their remarks. There is at least a possibility that some cases have been confounded with, or rather wrongly taken from, the next two classes of which we will speak. Courty¹ figures a blood polyp attached in this manner, but if the cut is approximately correct there is room for doubt whether the attached mass is

placenta or hypertrophied decidua. Admitting the occurrence as probable, but much more rare than its comparative prominence in books would warrant, we have a second form of polypoid tumor consisting of a mass made up of placental tissue and clotted blood. This form causes the same symptoms as in the mere blood polyp, but is both more difficult to remove and more dangerous to life.

3 The decidua vera or scrotina may become in part detached during the labor. Small strips of mucous membrane are thus left dangling from the uterine walls. This condition directly favors the stalactitic growth of blood-clots, and is probably the most frequent cause of their formation. Winckel² gives full details of a case of this character. Dr Munde's case reported in March, 1883, (*Am J Obst*, and elsewhere), appears to have been similar. When these tumors are removed, the laminated structure of the clot, interspersed with shreds of decidual membrane, are very liable to be taken by a careless observer for placental tissue. Such mistakes are not likely to be made by experts, but I speak of things as I find them. Thus we see that we may have polypoid tumors composed of blood, either formed in a normal uterine cavity or connected with placental or with decidual fragments.

4 A fourth form is thus briefly noted in Barnes. "C. Braun (1851) describes the *placental polypus*. This results from the remains of the placenta, consisting of hypertrophied decidua, which, projecting into the uterine cavity, forms a polypoid mass." This, it will be noted, is a very different thing from either retained placenta or prematurely detached, but otherwise normal decidua. It results from the hypertrophy of the decidua scrotina, or vera, due to inflammation or intense localized hyperæmia. I have not had access to the original paper of Braun, nor have I been able to meet with the record of any other cases. A detailed report, therefore, of two cases observed by myself may be of interest.

CASE I.—Mrs F, æt 27, third pregnancy. Labor continued for eight hours, nothing noteworthy occurring until after the birth of the child, a male weighing ten pounds. The method of Crede was then instituted, but a half hour elapsed before the placenta was finally shot out of the vulva. The membranes resisted considerable traction, and required to be much twisted before they could be withdrawn. The afterbirth was then carefully examined. It was of irregularly oblong shape, and "battledore." One or two small patches on the maternal surface presented the appearance of recent adhesion. On the membranes, about an inch from the placental edge, was a patch one and one-half inch in diameter, of roughened and flaky surface, and stained in spots by hæmatin. There was no history of inflammation during pregnancy, notwithstanding the presence of plain evidence of adhesion of both placenta and membranes. The womb was well contracted, and the patient comfortable in all respects.

Convalescence was uninterrupted, the patient being allowed to sit up on the eleventh day. On the even-

¹ On Child bed p 157

² Disease of Women second American edition p 689

ing of the twelfth day (post partum) she suddenly, while nursing the baby, suffered a copious hæmorrhage, and when I arrived an hour later, was still leaking, with a rapid pulse and exsanguined appearance. An examination showed the rectum to be so loaded with feces as to prevent access to the os uteri. Knowing this to be a not uncommon cause of secondary hæmorrhage, I at once administered an enema with prompt effect. On then introducing the finger into the womb I found that it contained a mass of firm tissue with polypoid knobs—but no blood clots. At the lowest end of the mass I found a slightly detached edge, and with a prying and sawing movement of the finger, succeeded in detaching the greater portion of it, until I could no longer reach to a sufficient distance. By this time, the condition of the patient demanded a cessation of hostilities, and having injected into the womb a strong solution of iodine, she was allowed to rest until the morning. No hæmorrhage nor pain during the night. In the morning, assisted by Dr. Loving, I proceeded to remove the mass, which had shrunk in size, since its partial detachment, and was attached like a veritable polypus at the fundus. The placental forceps brought away the greater part at one seizure, but a small fragment was unavoidably left for spontaneous detachment. Intra-uterine and hot water vaginal injections were used from this time, and the patient entirely recovered with the following remarkable diversions, viz. A chill occurring exactly one week after the hæmorrhage, another one week after that, and a third slighter chill just one week later. The free use of arsenic finally controlled them. It may be added that she had been a frequent sufferer from ague from her youth up.

To return to the tumor. While dissecting up the mass from the uterine wall, the conclusion that it must be a retained cotyledon of placenta was forcibly present. This was negatived by the careful inspection previously made of the placenta, and also by the density and comparative thinness of the mass. This also militated against the supposition of a "*placenta succenturiata*." Doubts were resolved when the mass was removed. Microscopically it was unmistakable uterine mucous membrane, although over a half inch in thickness.

Being referred to Dr. A. M. Bleile for microscopical investigation, he reports

A hardened and stained section exhibits

- 1 And principally, connective tissue with large number of cells
- 2 A few tubules
- 3 Blood vessels of respectable magnitude
- 4 Free surface, covered by columnar epithelium.

The whole giving the impression of uterine mucous membrane, in which the tubules are widely separated by embryonic connective tissue.

We have, then, here a case in which a relatively enormous hypertrophy of the decidua took place, resulting in a mass too large to be disposed of in the usual and physiological manner during the process of involution. That the cause was inflammatory may be inferred from the adherence of the foetal envelopes, notwithstanding the apparent health of the mother during gestation. That the predisposing

cause was malaria is suggested by the subsequent history.

CASE II.—Mrs. D. æt 23, primipara, delivered Feb. 12, by a midwife. By a curious coincidence nothing retarded convalescence in this case, until the twelfth day after labor, when a sharp hæmorrhage occurred. Unfortunately the midwife did not appreciate the possibilities of the case, and it was not until after three days and repeated hæmorrhages that I was called. I then found in the uterus several fibrinous polypi, which, when removed, were found to contain small shreds or flakes of membrane. After their removal the posterior wall of the uterus was noticed to be roughened or rather nodulated, and, a fragment being removed, proved to be mucous membrane. The midwife insisted that the placenta had been removed entirely, without difficulty, and by the method of Crede. As in the former case the condition of the woman was so low that I was compelled to defer further proceedings for the time, using hot water copiously in the interval. At a second sitting I succeeded in removing further bits of decidua, after which the uterus gave no further trouble, as the woman advanced to complete but slow recovery. For several weeks the extreme bloodlessness of the patient had to be combatted, and this was followed by œdema of the lower extremities with phlebitis. During the course of this she had many chills, alternating with fever. To make a diagnosis of malarial poisoning under such circumstances is somewhat hazardous, yet I am inclined to think that a malarial element of causation existed also in this case.

MAN ACCORDING TO NATURE

[Address before the District Medical Society of the Eleventh Congressional District of Indiana and published by request of the Society.]

BY WILLIAM H. SCHROCK, M.D., DECATUR, IND.

The laws governing our physical origin and development are so numerous and so imperfectly understood, and still less perfectly obeyed that we exclaim how fearful and wonderful the result.

With all the recorded facts of the past, scientific men of this age ought to occupy a higher plane of action, in defense of nature's laws. Man's spiritual nature has been so clearly taught, and the laws for its progressive growth till its final consummation in perfection at death in Christ so well obeyed, that the believer in and obeyer of the Bible furnishes the world with the highest and most perfect psychical type of man.

For elucidation and verification of this statement we refer you to those individuals, communities, states and nations that receive the Bible as the word of God, and who accept and obey its legitimate teachings, in contrast with those individuals, communities, states and nations that reject the Bible as the word of God, and deny and disobey its teachings.

We desire to direct your attention, to day, to a brief consideration of nature's laws, so far as they pertain to our origin and development from elemental life to its final consummation. In so doing we shall avoid whatever might lead us into a dissertation upon the inherent force of cell life or

laws of our being, but shall confine ourselves to the investigation of the laws of our physical being

Consequently, we have these three propositions to submit

1 A perfect physical being can only emanate from perfect germ elements

2 Perfect physical growth results only from full and complete obedience of all the pertaining laws

3 A perfect being only can completely fulfill the mission of its creation

As we can have a round body only when every point of its circumference is equidistant from its center, as we can have a straight line only when every point of it lies in the same direction, so we say a perfect physical being can be developed only when we have perfect germ elements, because of the inherent property given each of these, however unlike in nature and incapable of variation

Since we have infinite deviations from a round body or from a straight line, so have we deviations from perfect germ elements, producing results varying from the slightest abnormalities to the greatest monstrosities of the human organization

The difference may exist in the nervous, muscular, vascular, glandular, or osseous systems, separately or in combination in their primal organization, or may manifest the defect psychologically only. It does not necessarily follow that every perfect germ element will produce a perfect being

A perfect germ in its development will follow nature's law perfectly, providing its environment be in keeping with its organization and no extraneous causes interfere

What these extraneous causes are, their influence, and how to eliminate them is the proper function of the educated physician and philanthropic scientist

Recognizing the infinite wisdom of creating an intelligent being with perfect freedom to do as he may, subject, however, to the consequences of obedience or disobedience of the laws given for its control, it becomes us to know these laws, and, knowing, to obey them, and impart this knowledge to others. Until those who make a pretension of knowing the intricate laws of cell development, from its initial existence to its last stage as a living organism, shall by their example demonstrate that their belief and knowledge are in harmony, it cannot be expected that they who are ignorant of these developmental laws of cell growth will do much for themselves contrary to the desires of their grosser natures. As these laws are better understood and obeyed, elimination of whatever is detrimental, and the retaining of whatever is advantageous to the production of a being more nearly perfect, we shall by unequal steps of approximation, in the course of time, reach what is now capable of theoretic demonstration—a perfect physical and psychical man

This approximation cannot be by regular progression, for its advance will be in subjection to the tide of public opinion as wrought upon by the variable forces of positive teachers and cotemperate circumstances. When we seek for verification of this statement in the highest civilization that has existed, we are, from a superficial examination of presented

facts, and statement of facts, startled at the revelation, and led to doubt the position taken. But from a more deliberate and exhaustive examination, we are logically brought to a most encouraging result. Finding the very highest type of mental, physical and moral development of man wherever the laws of nature were obeyed, however ignorantly

Wherever and whenever the hygienic laws of the Mosaic dispensation were obeyed, there and then do we find marked progression toward a better physical man. "Nature's edict," "The fittest only shall survive," produced wonderful results in eliminating the halt, maimed, and diseased from the first peoples of all lands but not so in the same degree in the older nations and better provided for people, when disease in its multitudinous forms has been more successfully combated by the competent physician, its victims rescued from premature death, and their lives prolonged to *inflict* their ills upon their *unfortunate* progeny. We have health boards organized in nearly all of our States and larger cities to warn and forearm the people against epidemics of contagious diseases and epidemics modified by local causes, and most gratifying results have been obtained. Many noble acts of self-sacrifice are on record, performed by our enlightened sanitarians

But when the time lost, money expended, affections severed, homes made desolate, and deaths recorded, are totaled and set opposite to the result of the unions made through the sanctity and shielding power of the marriage vow, of the alcoholic, intemperate, phthisical, scrofulous and syphilitic persons in families, the results of the former sink into insignificant nothingness. And what is being done by the physicians, the people's health conservators to educate and warn the uninformed laity of the devitalizing, decimating results of these diseases as they are transmitted by father to child as its chief heritage?

In view of these things, we have no reason to be horrified at the seeming cruelty of the Roman father when called upon by the midwife, as she coldly points to the new born infant just laid upon the ground awaiting the father's order. If the father finds the child to be a likely one, he says to the midwife, "tolle infantum," and the child is straightway cared for. But if the child be defective in its physical organization, the father exclaims "exponere," and the child is left to perish. Thus by elimination of defective elements by this cruel and diabolical process the Roman Empire was enabled in a great measure to obtain and retain a very high type of physical man

Had they studied the laws of physical development and heeded the divine law so plainly taught in the Mosaic dispensation, far better results would have been secured than by the fearful crime of murder. In this mode of renovating and keeping the physical man up to its highest standard, however cruel and inhuman, they were far in advance of their illustrious predecessors. As knowledge spread disseminating the beneficent blessing of greater revelations of nature's laws, these modes of elimination ceased. As population spread over Western Europe, frontier life, the

many wars waged, the want of proper care of weak children, and the exposure of enfeebled adults, were the renovators of the human family, and in a very great measure preserved and advanced the standard of the physical condition of man.

In the progressive advance of national development, greater care on the part of individuals, the establishment of eleemosynary institutions and hospitals, the advance in medicine, all have so nurtured the abandoned, provided for the maimed, and suppressed the active manifestations of the constitutionally diseased, that they are permitted and enabled to form marriage unions resulting in progeny, defective, dependent, and to be cared for as themselves.

These, however, are not the only obstacles to a pure and perfect development of physiological man. We quote from Dr Kidd, author of "Laws of Therapeutics," who relates a history of the course of a disease in a family, the effect of which is to strikingly illustrate if it does not demonstrate the transmissibility of Bright's disease. A woman, two of whose brothers had died of this disease in early manhood, who herself died of it aged sixty, was the mother of twelve children, seven of whom died of it, and two grand-children are now afflicted with the disease. If the two brothers and one sister were the only members of the family, what a mortality! Of the second generation we have seven deaths out of twelve children, a mortality of $58\frac{1}{3}$ per cent. In the third generation two members are already victims and may be soon gathered as early fruits of an injudicious marriage. We draw from our own observation the following, to illustrate at least what may occur from a scrofulous diathesis. Mrs F, mother of six children, whose maternal parent had scrofula, had before her marriage several glandular abscesses about the neck and great sympathetic disturbance of left eye. The husband, a man of splendid physique, five feet eleven inches, sanguine temperament, and weighing about one hundred and ninety pounds, never from youth to present time has been sick, save in attack of remittent fever in the fall of 1865. The two first children died in early infancy after repeated scrofulous abscesses of head and neck. Soon after the birth of the second child the mother lost the use of the left eye. One child was born blind in one eye and lived only six months. A third child was born blind in one eye, lived to be nearly four years old and died from exhaustion resulting from repeated abscesses. Two only of six children reaching adolescent life in reasonably good condition but not free from scrofulous abscesses.

For the hereditary effect of alcoholic intemperance permit us to quote Pultzel, page 63. Father was a periodical drinker. By his first wife (who was healthy) he had four children, two daughters, one of whom was insane and the other imbecile (neither of these had children) and two sons, one of whom had an epileptic child and one an insane child.

By the second wife (also healthy) he had three sons, one died of epilepsy, one was epileptic and had an insane child. The third son had seven sons, all of whom had fits in infancy, one a confirmed epileptic, one suffered from epileptic insanity. Here

we have a brief history of seventeen children of the first and second generation, and only two of whom are put down as healthy, free from disease traceable to the periodical use of alcohol by the father. Had the two healthy mothers been addicted to periodical drunkenness, what would have been the result?

Thus have we briefly brought before us the theoretical and demonstrated instances verifying the correctness of the proposition, that a perfect physical being can only emanate from perfect germ elements. What a vast field for the practical utility of preventive medicine, to eliminate defective elements by the dissemination of demonstrated facts, facts which, when recognized and their lessons heeded, shall bring incalculable physical wealth, indescribable joy, and a hearty acquiescence to all the laws governing ourselves and all about us.

The second proposition, "A perfect physical growth results only from full and complete observance of all the pertaining laws," is so evidently axiomatic that an effort to demonstrate its truthfulness would becloud its clearness. Hence we will consider the third proposition, viz. A perfect being only can completely fulfill the mission of its creation. This proposition might be negatived by the statement that there is no perfect physical being, which is true to a very large extent, but not wholly so. If it were so, it does not invalidate, but rather strengthens the verity of the statement. It also demonstrates that the principles of the first two propositions have not been obeyed, and hence the necessarily imperfect result.

Were we to travel outside the realms of man's physical creation to demonstrate the position taken, there is none to deny that an imperfect locomotive can not completely fulfill its mission. There are but few persons, if any, but believe that any malformation of an internal or external character will modify or retard one's ability to acquire accomplishments or perform labor. Hardly can we hope to find an intelligent person believing that a supernumerary finger retards the social and mental progress of its unfortunate owner, and yet it will, and does. I have known even a double thumb nail on left hand to so annoy a girl of fifteen years, that she never could recite herself in class recitation equal to her ability. History informs us that our most successful men and women have been very high types of physical organization, have very closely kept the laws of physical growth, and consequently have quite well, though not completely, fulfilled the mission of their creation.

To accomplish these most desirable results we suggest that the conservators of the people's physical well-being improve every seasonable opportunity to bring this subject before the laity, that they may think of it, discuss it, and ultimately adopt its teachings, so that marriage alliances shall be entertained and consummated by the parties most nearly approaching a perfect standard of physical and mental development, being free from the contaminating influences of constitutional diseases.

We certainly are not responsible for the pre-natal influences which create a physical or mental condition, but we

certainly responsible for circumscribing the mental and physical condition of our children. Most wisely have the several States of this grand nation acted in part, upon this very important feature of man's physical growth. But their authority has not yet been exercised coextensive with their duty. While they rightly and justly prohibit the marriage of imbeciles, idiotic, insane, and blood-relatives, to the fourth, and in some States to the sixth degree, we have no doubt of the prosperity and preservative need of prohibiting, by statutory enactment, the marriage of phthisical, scrupulous, and syphilitic persons.

MEDICAL PROGRESS

LEMON-JUICE AND OYSTERS Paris Correspondent *Lancet*, June 30, 1883.—M. Cortes, a distinguished microscopist and biologist, decides from his researches, that the practice of using lemon-juice with oysters is not only a matter of taste, but that it also has its utility, as lemon-juice has the property of destroying the animalcules which infest the stomach of the oyster.

METALLOTHERAPY IN OBSTINATE HYSTERIA RAPID CURE BY ALUMINUM V. BURG and J. MORICOURT, *Comptes Rendus*, etc., *de la Société de Biologie*.—This is a case the details of which are given at length, of a girl æt 20, affected with hysteria of four years' standing, which manifested itself by a constant barking like a dog, with absolute anæsthesia of the left side and complete abolition of taste and smell. The abdominal muscles were in such a state of atony that it was impossible to evacuate the bowels except by enemata. The body in various places was affected by bands of redness with an indurated base, which, on disappearing, left behind them a pearly whiteness, like the marks in pregnancy. The patient had been treated by several physicians, Charcot among others, and had used all the antispasmodics—arsenic, electricity and hydropathy. For three consecutive months she had been seated on the electrical stool one or two hours daily, and for two years she had been douched winter and summer, without regard for the menstrual periods.

She was submitted to the test of metalloscopy, which resulted in a response to aluminum, and a solution of sulphate of aluminum (10 drops of a solution of 1-200) was injected under the skin of the left thigh, which in 20 minutes removed all traces of anæsthesia. After this result was obtained, a large plate of aluminum was applied to the left leg. In a few days sensibility became greater than normal in the greater part of the affected side. Injections at the larynx of 5 to 6 drops of the solution, produced in five months a return of the sense of taste and of sensibility to the tongue and palate. Consequently the following treatment was ordered: 1. Permanent applications of an armature of aluminum around the neck, left arm and thigh. 2. To take every day one to two pills containing 0.3 gr. cent of sulphate of aluminum, with the result of, two days later, the complete disappearance of the barking,

and a regular action of the bowels. The case now went on rapidly to convalescence, with but one drawback—two of these pills being taken one day, produced a diarrhoea. In 28 days the patient was discharged cured, being relieved of all her nervous symptoms, and not only had the red patches entirely disappeared from the skin, but the old stigmata were almost entirely effaced. During the treatment, the strength of the solution was increased to 1-100, and the patient increased in weight accordingly.

ON IODOFORM PLASTER DR. A. PAPE and Apothecary FISCHER in *Der Praktische Arzt* for July, 1883. Not being satisfied with the use of iodoform colloidion, or iodoform ointment as neither of them permit a constant and long-continued application to the skin, have prepared two plasters. First, *emplastrum iodoformi fortius*. \mathcal{R} Iodoformi pulv 100 0 Empl adhæs 200 0 Empl Plumbi Spl 200 0. Second, *empl iodoformi mitius*. \mathcal{R} Iodof pulv 50 0 Empl adhæs 300 0 Empl plumbi spl 300 0. These plasters adhere well, and can be removed without much difficulty. Dr. Pape gives several cases of acute and chronic local glandular swellings, with pain, where the plaster gave much relief after other preparations of iodoform had failed. The plaster remained on for from five to six days.

The empl iodoform mitius is applicable to the skin in such conditions as frost-bites. Dr. Pape refers to a case of pleuritis exudative which is still under treatment, and in which already, after the application for eight days of the stronger plaster, total resorption of the exudation has taken place.

CANNABINUM TANNICUM is a glycoride prepared from the semen *Cannabis Indica*, by E. Morek, of Darmstadt (*Der Praktische Arzt*, July, 1883), and is recommended as a mild and safe hypnotic which has no disagreeable after-effects. It has been used by Dr. Hiller in a number of cases of sleeplessness where there was no special pain, mostly in phthisical cases who had previously taken morphia and where sleep during the whole night was produced by an evening dose of 0.5 gram. Only one patient complained, on awaking, of headache and discomfort, and in this case it was doubtful as to whether they were not due to indigestion. No vertigo, indigestion or effects upon the pulse, or respiration had been noticed in any other of these cases. The number of cases in which this drug has been tried is, so far, very limited.

The dose is from 0.3 to 0.5 grams, and the most agreeable form of administration is the powder mixed with sugar. The taste is not disagreeable—slightly astringent, like tannic acid. The smell is like rum.

A CASE OF COMPLETE ADHESION OF THE TONGUE TO THE FLOOR OF THE MOUTH—M. Duplong communicates this case to the *Société de Chirurgie de Paris*, which is reported in its *Bulletins and Memoirs*, July 5, 1883, for the purpose of eliciting discussion as to the best means of relieving the affection. It occurs in a child aged two and a half months, the parents have no vices of conformation,

but the grandmother had an ectromelia of the right hand, which is reproduced in this child, also a difficulty in speaking, the cause of which was not made clear. The child presented a pitiful appearance, with a very notable disproportion between the superior and inferior maxillæ, while the lips and superior maxillary were well formed, the inferior maxillary had undergone an arrest of development. That portion of the inferior maxillary bone which corresponds to the incisor teeth was less elevated than at the sides, the soft parts of the upper hyoid region are less thick than in other children of the same age, and the tongue, adherent throughout its deep surface to the floor of the mouth, is very much diminished in size towards its point, it is continuous anteriorly with the gingival mucous membrane which covers the incisive portion of the bone, so that there is no appreciable line of separation. Outwards and backwards from this point a deep furrow is plainly seen bordered by the lateral portions of the tongue. The finger placed over what should be the tongue feels a marked diminution in size of the anterior third of the organ, which is there reduced to a simple membrane, while posteriorly it preserves a thickness which should be sufficient assurance of its functions were it liberated from its attachments. It is felt contracting during the efforts at deglutition, and the lateral portions in the posterior, two-thirds of the tongue thus show that they are provided with a muscular texture, but it is very difficult to know exactly if, towards the middle of the tongue, the coalescence with the floor of the mouth is absolute. In the efforts at sucking the whole of the supra-hyoid region raises itself and suction becomes impossible. The child can only be nourished by means of the spoon, and its alimentation is curiously interfered with by the suffocation produced during deglutition.

As to the ectromelia of the right hand, inherited from the grandmother, it consists in an atrophy of the thumb, in the absence of two phalanges of the index, the absence of the medius, and the reduction of the ring finger to two phalanges, the little finger alone is perfect.

M Duplong proposes to attempt to relieve this condition by using the thermo-cautery cautiously and separating the parts with the spatula or finger. In the discussion which ensued it was thought that unless a mucous covering was provided for the liberated surfaces, there would be a readhesion of the parts, and it was a question as to where that mucous covering should come from. M Verneuil proposed to take this covering from the upper surface of the tongue, laying it back over the liberated portions, and, at the same time, piercing the tongue with sutures so as, by drawing on them, to give the tongue a cylindrical shape. M Mare See suggested the taking of the mucous membrane from the inner surface of the cheek in strips to be left adherent to the cheek until after their cicatrization on the tongue itself.

NOTE ON DISINFECTANTS —Dr W. E. Buck writes: Most practitioners must have often realized the inefficiency of disinfectants in allaying the fœtor of can-

cerous ulcers, an annoyance which sometimes troubles patients even more than the pain, or the thought of death. I have used the whole round of disinfectants for cancerous ulcers, but all have failed in allaying the fœtor and keeping the ulcer clean. The disinfectants tried were carbolic acid, sanitas, terebene, resorcin, creasote, boroglyceride, chloride of zinc, charcoal, etc. After failure with these, I tried a saturated solution of hyposulphite of soda added to an equal quantity of water, and found it exceedingly efficacious. The ulcerating surface was well syringed and washed with the solution, and was then covered with rags steeped in the solution. The granulations were kept clean, and the fœtor was well kept under. Most disinfectants seem to lose their virtue after a few days' application, but I have used this one for months in the same patient with continuous good effects. It is cleanly, has no smell, does not stain, and is very cheap. —*British Medical Journal*

THE PRESENCE OF BACILLUS TUBERCULOSIS IN AN ABSCESS NEAR THE ANUS —Dr Robert C. Smith writes: Six months ago a young clerk aged 21 came under treatment for hæmoptysis and other signs of phthisis. After about three months' treatment he became strong enough to resume his employment, at which he continued up to the commencement of this month. I saw him on the 5th, when he was suffering acutely from an abscess in the neighborhood of the anus, and, fearing lest it might burst into the bowel and give rise to a painful blind internal fistula, I opened the abscess at once and let out a quantity of thin, curdy, foetid pus. A microscopic examination of this fluid by a half inch object glass, after the usual process of staining, revealed the presence of great quantities of well-marked typical tubercle-bacillus. Now, the presence of these organisms in this situation is interesting, as they tend to throw some light on the well-known connection between fistula and phthisis. —*British Medical Journal*

ON CYSTOTOMY BY A MODIFIED LATERAL METHOD IN CERTAIN CASES OF ENLARGED PROSTATE —Mr Reginald Harrison, F.R.C.S., Surgeon to the Liverpool Royal Infirmary, writes:

"Within recent years, I have had cases where it has been found expedient to make an opening from the bladder into the perineum, in preference to other measures, the usual means of relieving obstructed micturition, or the consequences arising therefrom, having failed or proving insufficient.

"I may premise by stating that, apart from those cases of obstruction complicated with circumscissile abscess, no such proceeding has been undertaken on the sole ground that catheterism was impossible, though some difficulty connected with the performance of the operation has, with other circumstances, usually been present.

"The selection of a method for opening the bladder should have reference only to the object to be attained, or the contingencies that may arise. If, for instance, we desire merely to introduce the finger into it, as a preliminary to extracting a small

the median operation answers perfectly, while, if a larger stone, or an unknown quantity of anything, has to be dealt with, the lateral incision will, as a rule, be preferable

"It has been advanced by those who favor the median incision, which is practically an urethrotomy, that it is both simple and safe, its admitted disadvantage lies in the small space it provides for manipulating and extracting, while, on the other hand, the lateral incision, though affording more room, is considered to be attended with an increased risk and a greater degree of difficulty, so far as its performance is concerned. The median operation need not necessarily involve anything more than the opening of the membranous urethra. The completed lateral operation further includes the division of structures constituting the neck of the bladder, and it is to this part of the proceeding that any increased risk or difficulty is to be attached

"A little reflection shows that it is possible to closely assimilate the lateral with the median operation, that is to say, to dispense with the incision, not to the staff, but along the staff, should it be found, on exploration with the finger, that the additional room which the latter part provides is unnecessary for the object in view. It need hardly be said that this modification of the lateral method, where it is found, on digital exploration, to be feasible, frees the operator from executing the only portion of the operation to which any increased risk is attached, while, on the other hand, he has the consciousness that, should it turn out to be necessary, he can, by the completion of the deep incision along the staff, avail himself of all the advantages which are conceded by surgeons to the lateral method of opening the bladder." Mr Harrison illustrates his method by the description of a case — *British Medical Journal*

ALBUMINURIC RETINITIS OF PREGNANCY — Dr Ryerson, of Toronto, writes

"Mrs E, aged 22, was referred to me by Dr Temple on June 1st, 1881, with the statement that the urine contained a large amount of albumen. The patient stated that her sight had been failing for about a month. She said she could see the sides of an object, but not the center, and complained of flashes of light in the dark. She had frontal headache, sometimes severely. She had no pain in the eyes. There was a great deal of nausea and vomiting. She was in the fourth month of her first pregnancy. With the right eye she saw fingers at five feet, and read 16 Jager, with the left she saw fingers at three feet, and read 20 Jager. With the ophthalmoscope I observed in the right eye a well-marked stellate arrangement of deposits about the yellow spot, with numerous patches scattered about the retina. The optic disk was somewhat swollen and indistinct in its outline. The appearances in the left eye were very similar, with the addition of numerous small hæmorrhages in the lower half of the fundus

"Dr Temple informs me that shortly after this she was seized with convulsions, and had a miscarriage. She made a good recovery, and when I saw her again on August 4th the swelling of the optic disk

had greatly diminished, the scattered patches were less marked, but stellate patches in the region of the macula were about the same as when first seen. In the right eye two veins apparently contained thrombi. The vision was with the right eye, $\frac{1}{50}$, 16 Jager, with the left eye, $\frac{1}{10}$, 16 Jager. She could manage to write a letter. From Dr Temple I learn that she regained good vision, but did not myself see her again. In a few months the unfortunate woman became pregnant again, although warned of the danger, convulsions supervened, and in one of them she died

"REMARKS — It would be of considerable interest to learn in what proportion, and in what class of cases of albuminuria of pregnancy, retinitis occurs. That it does not necessarily occur, I know, having attended some years ago two cases in which there was no complaint of trouble of vision. One case, a woman of about thirty years, in her fourth pregnancy, made a good recovery. The other had uræmic convulsions, and died. I did not use the ophthalmoscope, but relied upon the patient's statements, the cases having occurred in my pre-ophthalmoscopic days." — *British Medical Journal*

ON A CASE OF OBSTRUCTIVE JAUNDICE OF AN UNUSUAL NATURE — H Mallins, M.B., etc. *Lancet*, June 30, 1883. An officer of the Indian army was attacked October 13th with mild intermittent fever, but with a good deal of nausea and vomiting. Two days subsequently a decidedly yellow tinge of the conjunctiva was noticed, and a week later well-marked jaundice was developed, with its usual accompaniments of whitish stools, dark-brown urine, etc. The appetite was not much impaired, but the ingestion of nearly every kind of food procurable was attended with so much subsequent nausea that the amount of nourishment taken was extremely small. Three weeks after the full development of jaundice, yellow vision and intense irritation of the skin, particularly that of the lower extremities, were complained of. No enlargement of the liver could be made out, very slight tenderness, on pressure over the region of the gall-bladder, was the only local indication. Emaciation became so marked, that after trying change of locality he applied for and obtained furlough to Europe. On January 18th, at Bombay, he had occasion to go to the closet, and while inspecting the excreta discovered a large ascaris lumbricoides, apparently dead, one end of its body to the extent of half an inch being of a deep green color. The very next day the stools began to exhibit a slight amount of the normal bilious hue. Ten days after embarkation their color was quite natural, and before landing in England convalescence was satisfactorily established

A CASE OF MONSTROSITY. Dr Raverty describes the following case of a sireniiform foetus

"I was called to attend Mrs D, in her fourth confinement, on May 9th, 1883. On my arrival I found the water had come away about twenty minutes before, and projecting from the os externum was a fleshy mass so unlike any usual presenting part of the

fœtus to the touch, I was quite at a loss what to make of it. However, another pain coming on solved the riddle at once, the feet and leg or legs being expelled, and in a short time the shoulders and head followed. The child was alive, and continued so for eight hours. The mother made a good recovery. From the head downwards to about midway between the sternum and the umbilicus it was in every respect well formed, and to outward appearance perfectly natural. From about that point the following particulars were noticed. There were no projections at the usual site of the crests of the ilia. The abdominal cavity was small, and seemed to be almost destitute of contents. The genito-urinary organs were represented by a small round aperture surrounded by a slightly elevated fleshy ridge (represented by a lower dot in the figure). The limbs were enclosed in one continuous fold of integument, although the bones could be felt quite separate underneath, and in front there was a slight depression marking where the division ought to have been between the limbs. There was no separation of the buttocks, in fact, there was very little of the usual projections at this point, and there was no anal orifice. The feet were joined together at the heel and partially so at the center of of the foot, but the toes were well formed, in the usual number, and free. I would have liked a *post mortem* examination, but the parents objected. The mother said she had only gone eight months. There was no history of a fall or fright, except a bad dream about the fourth month.—*British Medical Journal*

THE POLITICAL POWERLESSNESS OF THE MEDICAL PROFESSION, ITS CAUSES AND ITS REMEDIES.—This is the title given to the annual presidential address before the Birmingham and Midland Counties Branch of the British Medical Association, by Balthazar Foster, M.D., F.R.C.P., as reported in the *British Medical Journal* June 30, and it would well repay the reading to print it in full in these columns. A political doctor striving to make professional capital out of his relations to party and party feeling is a different thing from the public-spirited medical man interested in the welfare of his locality, State, and general government, whose education fits him for a consideration of many of the political questions of the day. Does not his position in the community also demand that he express his views freely? He may see his member, for instance, who was perhaps a patient, and who was certainly dependent, in a measure, upon his vote and his influence, if he chose to exert it, make a record in Congress upon some sanitary question affecting the whole country, or in cutting down appropriations for institutions that are the pride of the profession—in a way that ought to make him ashamed of his declining to mix in political matters for fear of being considered like the doctor who is making capital out of his politics.

Dr Foster reviews the medical acts of Parliament—the necessity for medical representation in the House of Commons, and cites the Cruelty to Animals bill as an example of the character of legislation. "A sickly sentimentality, half-sister to that æstheticism which made a large section of society

contemptible to healthy and robust manhood, was allowed to influence the legislature at the expense of knowledge, and in opposition to the protest of a profession, tender, trusty enough to hold in its daily charge the lives of our dearest and best, but yet, forsooth, so full of devilish cruelty that it could not be trusted with a cur or a cat." He refers to the evils which will accompany the Practical Abolition of the Contagious Diseases Act, and feels anxious that it may be followed by one encouraging anti-vaccination. "As a class, we are too timid and too reticent, we fail to take our due share in the public work of the communities in which we live. The nature of our daily work is to many of us so absorbing in its interest, and demands so much of our time for calm, careful reflection, and for scientific investigation, that we turn, with the dislike of philosophers, from the noise and dust of the forum. With some of us, probably, there may be a lurking fear that pronounced opinions on political and social questions are apt to injure a doctor in public estimation, and so to lessen his professional influence and his pecuniary profits. In the sad quietude of the sick chamber, where the finer issues of life and death have to be weighed, the brawling politician would jar on the sensitive nerves of the sufferer, truly, but we need not be brawling politicians, nor need we allow political questions to so occupy our thoughts as to interfere with that absolute concentration of mind on the case of every patient, which is essential to the most perfect performance of our work." "In my experience, personal and collected, I have been able to find few, if any, examples of permanent injury to a medical man, from any manly and proper action in his capacity as a citizen. I have heard of cases of failure attributed to political partisanship, and also of cases of success, both of which could be easily explained on ordinary personal grounds." "The public do not trust a man in illness because he agrees with them in politics, it is because they have confidence in his professional skill and integrity, and if in any case the scale of favor is turned against us by so slight a thing as political preference, believe me, the balance of esteem between the patient and the doctor is not worth preserving."

"At the last general election, while lawyers stood by scores, not a single medical practitioner went to the poll in the whole of England. In other nations this is not so. In Germany, the world renowned pathologist, Virchow, was the leader of a powerful party in the Prussian and German Chambers. Among the deputies of France, one of the most powerful leaders and the probable successor of Gambetta is a doctor, and till recently a distinguished physiologist held a ministerial portfolio. In Italy the same conditions hold good, and at the last election, seventeen medical men were elected by the people for parliamentary work.

"We, as a profession, know the wants, the sufferings and the sorrows of the people more intimately than any other class, and by our daily work in the homes of the poor, we are trained to observe their social and sanitary needs. It is always a calamity to a state when any learned respectable class is its

citizens abstains from the exercise of political functions. It is a greater calamity when they do so in the face of law-making on which they are capable of wise counsel. As a class, we stand almost alone in extent and thoroughness of scientific training. We are the only body wise in all the mysteries of the new knowledge. As the power of other learned callings wanes, as the proud predominance of wealth is lessened, it is scientific intelligence that must gain in power. But power will not come to those who stand aside and look on, either cynically or timidly, at the strife of parties. We must hold ourselves like men, willing to take our share in the struggle. We must remodel our institutions, we must organize and consolidate our profession, and infuse into our ranks the self-respect and dignity that come from discipline."

INSITUMENT CASES.—In a long and interesting article by Dr. Indolt, in *Archives d'Ophthalmologie*, for July and August, in which he details carefully the instruments required in surgical operations on the eye, he makes reference to the box or case in which instruments are kept, which, in its language, is equally applicable to all surgical instrument cases. He says: "Formerly (and frequently to-day) instrument cases were generally of wood, covered with leather, and lined with velvet. We cannot deny that a box of that character, handsomely finished, in Turkish morocco, ornamented with metallic corners and plates, lined with some rich material of bright color, with rows of glistening instruments arranged in close order, is a very pleasing sight (to the surgeon). But this bright picture has its shadows: the handsome velvet retains dirt too readily, and the luxurious interior of the box is absolutely opposed to a radical cleaning, and to an antiseptic in harmony with the doctrines of modern surgery. The simple box of wood has now come into vogue, and we have seen them of such handsome wood and superior workmanship as to rival their elders. They are made of walnut, mahogany, ebony, and rosewood. Walnut is the most solid, ebony the handsomest and dearest. Mahogany is very solid and gains in beauty with time. Foreign woods are sold by weight. Merchants frequently soak their woods in water to increase the weight and price to the detriment of their value. A wooden box should be sufficiently well made to be plunged with impunity into an antiseptic solution, and to sustain thorough cleanings with brush and sponge."

THE TRIBULATIONS OF A COUNTRY OBSTETRICIAN.—Under this title a Dr. Pierre gives, in the *Gazette Med. de Picardie*, a very amusing account of his experiences. In one of his cases, where he assists at the birth of a child born out of wedlock, the mother of the mother is highly indignant, not at the condition of her daughter—that is a small matter—but that the mother of the father is not present at the birth, in indignity which she could not brook, but which was finally condoned by the arrival of the offending party. One case can well be given in his own style. "I was on duty at the Hospital Saint Antoine. One night, about one o'clock, I was

awakened to receive a patient. She brought with her in her arms an infant that was nearly naked. I received her as an urgent case. The next day she gave me her history, but I will let her speak for herself. 'I am a very gay person, sir. I love the ball. I have not absented myself during my pregnancy, which yesterday passed the seventh month. At ten o'clock last evening I was one of the first at the dance, near the Place du Trône. I did my best. After several country dances I felt pains. So much the worse, said I, if it is coming this evening, as I have not reached my full time. I will leave the hall as late as possible. But the pains continued. The more I suffered the more I danced. In the *cavalier seul*, which at our balls leaves the ladies to dance alone, seized with sharp pains, I made some astonishing contortions while dancing. I had a remarkable success. Then the *gallop* followed, in which I seized my partner with a vigor I did not know I was capable of, when suddenly the waters broke. The accident was observed, but was attributed to a different cause. The jokes rained on me. I tried to escape, they pursued me. I ran out, they followed me. I passed down the Boulevard Mazarin, some thirty of them were at my heels. Where the Madeleine branches off I climbed over the board fence of a wood-yard. Fortunately, my pursuers had lost track of me. I sat on the ground, it was time, the child came five minutes afterwards. I have wrapped it up in my handkerchief, and small as it is, I think it will live.' She was right, both mother and child did well, and she left the hospital ten days later without any disagreeable complication."

EXTRA UTERINE PREGNANCY OF SEVEN YEARS STANDING.—DISCHARGE OF THE FOETAL SKELETON BY THE RECTUM.—(M. H. De Brundu Boston, *La Presse Médicale*, June 30, 1883.) The patient, aged thirty-seven years, was taken suddenly in the second month of an apparently normal pregnancy, with an extremely acute pain in the lower portion of the abdomen, followed by syncope, vomiting and coldness of the extremities. This was the outset of an attack of peritonitis which was very severe, lasting two months. Pregnancy continued regularly with no other trouble than swelling of the legs, up to the middle of the ninth month. Fifteen days in advance of the expected time, labor commenced. Expulsive pains became frequent, and the neck of the uterus became pituitous. At the end of three days these phenomena ceased suddenly, all painful contractions stopped, the abdomen seemed to be smaller, the neck of the uterus became firm and closed, and the next day the patient got up and attended to her usual occupations. For several days her breasts troubled her by their tension, accompanied by a somewhat abundant secretion of milk. Six weeks later menstruation was re-established, and her menses have continued for the past seven years with promptness and regularity. During that period the general health has been excellent, no pain in the abdomen, no irregularity in the intestinal organs, nothing to indicate any uterine or peritoneal disorder. Eight months previous to the date of making the report,

the patient was taken with sharp abdominal pains, fever, general malaise, anorexia and vomiting. Diagnosis peritonitis, and the patient lay in bed five weeks, during which time some hair was passed in the stools, mixed with fecal matter. Five months later, i. e., three months before the date of report, the patient discharged by the rectum little bones in great number, belonging to a foetus at term. Each stool contained one or two. These bones were entirely deprived of any soft parts. A great part of the skeleton has been discharged in this way—ribs, vertebræ, tibia, radius, humerus, femur, scapula, temporal, sphenoid, superior maxillary, and numerous phalanges. All these bones are in an advanced state of ossification, more so than is seen at birth. In the scapula, the ribs and the other long bones mentioned, the diaphyses are ossified throughout. At present there is very good general health, good appetite and no intestinal trouble, bowels regular, no blood in the stools, but from time to time these bones are expelled in the midst of the fecal matters. On feeling the lower part of the abdomen, on the right side, a tumor is found, of the size of a foetal head at term, not painful on pressure. It has slightly diminished with time. Rectal examination throws no light on the subject.

A NEW METHOD OF REDUCTION IN DISLOCATIONS AT THE ELBOW-JOINT. J. E. KELLY, F.R.C.S.S., etc. *Dublin Jour. Med. Science*, July.—The operator sits on the corner of a table, at the end of which the patient is placed upon a chair. The injured limb is drawn under the surgeon's proximal thigh, which rests, close to the joint, on the anterior surface of the humerus, while the olecranon is accurately placed on the anterior surface of the lower third of the distal femur, and the proximal foot is "hitched" behind the other leg, which is fixed firmly against the frame of the table. In order to obtain the most favorable fulcrum, the surgeon fixes his proximal elbow against the antero-internal aspect of his corresponding thigh, and, grasping the wrist of the patient with both his hands, reduction is effected by the simultaneous and co-operative action of the muscles of the arm, back and thigh. Fixation and counter extension are supplied by the powerful thighs of the operator, and coaptation is effected, with great nicety, by the backward pressure of the proximal femur against the anterior surface of the humerus, while the distal femur forces the olecranon forward.

ANEMIA AND SOMNAMBULISM.—The *France Médicale* has found the following interesting notice in a journal of April 11th, 1883: "A physician desires to find an anæmic girl to form a lucid somnambulist. Pay, 100 francs a month. Three sittings a week, from 4 to 6. Address letters to M. Dereca, Poste Restante, Bureau de la Bourse, Paris."—*Moniteur de la Polyclinique*.

TREATMENT OF ULCER OF THE STOMACH.—DR F. P. ATKINSON, *Practitioner*, July.—Complete rest in bed. Teaspoonful of Brand's essence of beef, or Valentine's meat juice in a little cold water, in small quantities every four hours, a wineglassful of milk

and lime water (mixed in equal proportion,) to be taken frequently, and the body to be rubbed with olive oil morning and evening. The beef essence and milk were very gradually increased, and, when the pain had almost subsided, a little sponge cake, bread, barley water, arrow-root, etc., were allowed, and, at last, by very slow degrees, ordinary food replaced the liquid diet. No stimulants. No aperients. **R.** Medical treatment. 8 grains of tartrate of iron, 15 minims of tincture of conium, 15 minims of tincture of columba, 15 minims of glycerine. In one ounce of water, three times daily.

EFFECT OF ALUM GARGLES UPON THE TEETH.—M. Young prescribed a gargle containing a small proportion of alum for a woman suffering from chronic pharyngitis with catarrh of the middle ear. The patient, finding relief, continued its use for some three weeks. But perceiving that, at meals, her teeth began to crumble into little pieces, she consulted her dentist, who considered it due to the alum gargle, as when the enamel is removed from the teeth, the alum breaks down the dentine. To prevent this it is best, immediately after using an alum gargle, to wash the mouth out with a solution of bicarbonate of soda or an alkaline water.—*Courier Medical*.

WHAT OUR NEIGHBORS THINK OF US.—The *Lancet*, London, June 30, 1883, contains the following: "The annual meeting of the American Medical Association was held in Cleveland, Ohio, on June 5th to 8th. The President, Dr John L. Altee, delivered the opening address, in which he gave some reminiscences of his early medical life, mentioning some of his old teachers and schoolmates, and referring also to the code of ethics, showing what the state of the profession was prior to the adoption of the code, and what good results the code has accomplished. The feeling in reference to the question of altering the code in the direction desired by some New York practitioners, was very marked indeed, and it was quite evident that the general body of the profession in America has no sympathy whatever with those who would degrade it by the adoption of the 'new code'."

The same number has a long and interesting editorial on Dr Austin Flint's "Medical Ethics and Etiquette." To do it justice the editorial would have to be quoted in full.

At a meeting of the Board of Trustees of the newly organized Women's Medical College, of Kingston, Canada, the following were appointed professors: Obstetrics, Dr M. Lavell; Surgery, Dr M. Sullivan; Anatomy, Dr C. Irwin; Materia Medica, Dr A. S. Oliver; Practice of Medicine, Dr H. Saunders; Medical Jurisprudence and Sanitary Science, Dr T. M. Fenwick; Institutes of Medicine and Histology, Dr W. H. Henderson. The college will be opened this fall.

DR EDGAR A. DEAN, of Brockton, has been made a member of the Massachusetts State Board of Health, Lunacy and Charity.

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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COLLECTIVE INVESTIGATION OF DISEASES.—It is known to most of our readers that, during the past year, an organization has been effected by prominent members of the British Medical Association for the purpose of establishing a systematic method of collecting facts regarding the prevalence, causes, and results of all the more important diseases. The organization is headed by a central committee called the "Collective Investigation Committee of the British Medical Association," of which Dr G M Humphrey is Chairman, and Dr F A Mahomet is Secretary. The plan embraces the establishment of local committees in all parts of the kingdom. Under the direction of the general committee a circular or "Memorandum," intended to aid in directing the attention of the practitioners, is prepared concerning each disease and numbered, and with it a card containing a full series of questions in the most convenient form for answering. A copy of these memoranda and cards is sent through the local committees to all those practitioners who are to be enlisted in the work of investigation. The cards as soon as filled are to be returned to the secretary of the local or sub-committee, who returns them, properly arranged, to the secretary of the general committee. For a time the returns were published in the columns of the *British Medical Journal*, but soon became so numerous as to occupy too much space, and, in May last, it was proposed by the general committee to publish only abstracts of the more important returns in the *Journal*, and publish the full reports in separate volumes or "Records" at such intervals as might be necessary. At the recent meeting of the

American Medical Association in Cleveland, Dr J S Billings presented a communication from the Secretary of the Collective Investigation Committee of the British Medical Association, inviting the co-operation of the American Association in establishing a similar system of collective investigation work in this country, thereby making the work international so far as to embrace all English speaking peoples. As the American Medical Association, through a standing committee appointed five or six years since, had been prosecuting a system of co-operative investigations concerning the relations of meteorological conditions to the prevalence of acute diseases, the communication presented by Dr Billings was referred to that committee for consideration. As chairman of the committee to which the subject was referred, I desire at present to simply explain to the members of the American Association the nature and extent of the work in which they are invited to engage. This will be accomplished most perfectly, perhaps, by quoting the following as a specimen circular or memorandum, with the series of questions to be printed on a card convenient for answer and return.

COLLECTIVE INVESTIGATION COMMITTEE

MEMORANDUM (No. 1) ON ACUTE PNEUMONIA, ESPECIALLY WITH REGARD TO ITS ETIOLOGY AND EPIDEMIC PREVALENCE. BY OCTAVIUS STURGES, M D, AND SIDNEY COUPLAND, M D.

The object of this inquiry is to collect evidence from those who are best able to afford it, bearing on the natural history of acute pneumonia as observed in this country, and especially its etiology. Upon this latter question opinion is much divided, and while in other countries valuable material has been collected respecting it, little has been done in our own. It is now desired that an impartial investigation should be made upon the disease, in the hope that information of great value may be elicited. Such an investigation might reasonably be expected to be of service in the promotion of particular measures of prophylaxis, and probably also in the establishment of a rational therapeutics in this disease.

At the present day, two views are commonly held, concerning the etiology of an attack of primary acute lobar pneumonia in a previously healthy individual. They may be concisely summed up under the terms 1 Exposure, 2 Infection. The first view is that generally accepted, the question is, What grounds exist in favor of the second? That this latter form of pneumonia does exist, possibly to a far greater extent than is admitted, seems likely, not only from the records that appear from time to time upon "epidemic" and upon "contagious" pneumonia, but also from the well-attested facts of the ordinary course of the disease. All clinical observers are agreed that the fever characterizing many of the best marked cases of acute pneumonia does not run parallel with the physical signs of the pulmonary infla-

mation, that it does not, in other words, coincide with the latter in degree or in duration. For instance, high fever usually accompanies a small tract of inflammation, when this is seated at the apex of the lung instead of at the base, and again, it not uncommonly happens in an ordinary case of basic pneumonia that the fever subsides rapidly (by crisis) some days before the local signs indicate a corresponding improvement in the damaged organ. These are but two examples out of several which might be quoted, as affording *prima facie* support to the view that in the disease we call "pneumonia" there is something over and above the mere condition of an inflamed lung, some influence, call it septic, or what not which, attacking the whole organism, has its local and manifest expression in pulmonary inflammation. Have we, in a word, in the inflamed lung, a condition related to some underlying influence (at present unknown) in a manner analogous to the bowel affection characterizing typhoid fever, or, to the cutaneous inflammation of facial erysipelas, or, on the other hand, is pneumonia simply a local disease, solely due to "exposure," like catarrhal affections?

We have here, however, not to deal with speculations, but only to ask for facts. The facts supplied may go far to show that an "epidemic" of pneumonia means nothing more than a great prevalence of the disease due to atmospheric conditions, to which the term "epidemic" is no more applicable than it is to bronchitis, when that happens to be prevalent. The Collective Investigation Committee invite the profession to aid them in determining a question, the solution of which will materially further the progress of scientific and practical medicine.

The main points to which attention is directed are given in the accompanying schedule. They do not involve detailed statements, and most of them can be answered by a mere affirmative or negative, or by the erasure of certain words. A few brief explanations will suffice to show the purport of the questions.

The answers to the questions concerning *occupation* and *habits* will point to the existence or not of any factors peculiar to the individual, which may operate in rendering him susceptible to the disease. From them it will be learned whether his life, passed in the counting-house, factory, or workshop, or in the farm or mine, be sedentary or active, whether the occupation, in short, be one likely to expose him to unsanitary or miasmatic influences, to changes of temperature, to great physical fatigue or mental effort, or to other conditions whereby his general health may have suffered, or his liability to "take cold" be enhanced, while, as to habits, it may be expected that some light may be thrown upon the extent to which impoverished diet, and especially *alcoholic intemperance*, conduces to the determination of pneumonia.

Then follow a series of questions specially intended to elicit facts bearing upon the existence of epidemics of pneumonia, and the conditions under which they arise. The *locality* and *situation* of the patient's dwelling, whether this be in an elevated position, isolated and exposed, or sheltered in a valley, or buried among trees, or in the heart of a thickly-

peopled town, together with the nature of the soil on which it stands.

It should be explained that, under the next heading, *atmospheric conditions* prevailing at the time of the attack or epidemic, it is only intended to ask for such general statements as "dry," "damp," "wet," "cold," "hot," "changeable," and the prevailing wind—such as come naturally under the head of "weather"—without any detailed "meteorological" data being required, as these could be supplied, when necessary, by reference to the records of the Meteorological Office.

The next query requires a single word in answer from the practitioner. Are there *other cases of pneumonia* in the patient's house or in the surrounding district? If there be other cases, and an outbreak of pneumonia be generally prevalent, the observer's returns upon *each* of the cases that come under his notice will afford the chief evidence of the presence of "epidemic pneumonia," so far as his practice goes. To make the information complete, it is to be hoped that, whenever pneumonia is unduly prevalent in a district, every practitioner concerned will take part in this inquiry. In this way the Committee would be placed in possession of a mass of facts of the greatest value accumulated by independent observers.

It is also of great importance to learn whether, at the time of the prevalence of pneumonia, there be concurrently an undue prevalence of the *specific fevers*, *e g*, typhoid, scarlatina, diphtheria, erysipelas, etc., as it may happen that conditions liable to produce such diseases in some individuals may favor pneumonia in others. It must be understood that examples of pneumonia occurring as a complication in the course of a specific fever are not required. Where, however, as sometimes happens, pneumonia occurs in the *initial* stage of a specific fever—notably typhoid—such a case should be recorded in this inquiry. In like manner, information is asked for as to any concurrent undue prevalence of those ill defined mild febrile conditions, to which the terms *febricula* and *catarrhal fever* are applied, with the view to ascertain whether they also rise under conditions existing at the time when pneumonia prevails.

The next question applies to a different branch of the subject. In asking for a return of the concurrent prevalence of *bronchial catarrh*, it is intended to ascertain how far an "epidemic" of pneumonia may be explained by the existence at the time of meteorological rather than "septic" conditions. If, for instance, the returns show that pneumonia and bronchial catarrh are both unduly prevalent in a particular district, where there is no reason for suspecting any unsanitary influences, but at a time when cold and damp weather is in the ascendant, then surely it may be fairly concluded that the pulmonary and bronchial disease have in this instance the same non-specific etiology, whereas, on the other hand, if pneumonia largely prevail, and catarrhal affections be at a minimum, there will be ground for suspecting that meteorological variations were not alone, if at all, to be assigned as the cause of the pneumonia.

Next on the list comes the important subject of

sanitary conditions, which, if carefully inquired into, may throw much light upon many an "epidemic" of pneumonia. It may be discovered, for instance, that, when several members of a household have been in succession struck down by the disease (not at the time generally prevalent in the district), the house itself is in an insanitary state, and that its inmates have been poisoned by sewer-gas or other noxious effluvia. Or, again, the practitioner, meeting with an unusually large number of cases in his district, may find that the drainage is generally defective. If a reasonable doubt exist on these matters, the word "uncertain" will sufficiently express it.

The remaining queries refer solely to the *family* and *personal history* of the patient and the leading features of his attack. From the answers furnished, it will be possible to learn whether there be any uniformity in the extent and seat of the pulmonary inflammation, in the course of the concomitant fever, in the rate of mortality, etc.

Lastly, space is left for any additional remarks from the observer which appear to him desirable, but there is no need for him to go beyond the few points named, as answers to them will furnish all the information required, and he will find that these replies can be made without the expenditure of much time. Facts alone are asked for, and those neither numerous nor abstruse, but they should be plainly and simply stated, unbiased by views or opinions, and so presented, they will be collated and analyzed, with a view to the solution of one of the many vexed questions in medicine.

Form of Card about to be Issued

Initials of patient	M or F	Age	Sanitary condition of house—good bad, indifferent
Married	Single	Widowed	Sanitary condition of district—good bad, indifferent
Occupation	Temperate	Intemperate	Family history of lung disease
Abstainer		Total	Previous illness of patient with dates
Food—sufficient	insufficient		Attack preceded by rigors
Place of residence			Date
Locality—high low damp dry ex- posed confined			Premontory symptoms
Prevailing wind at onset of attack			Date of onset
Atmospheric condition—dry damp wet cold, hot changeable			Part of lungs affected R base apex L base apex
(State whether many or few of each dis- ease.)	In Same House	In Dis- trict	Expectoration—blood rusty white none
Cases of pneumonia			Fever—severe moderate mild
any kind of it			Highest range of temperature
ver			Duration of fever
catharrhal fever			Termination of fever—sudden by gradual subsidence
tonsillitis			Duration of physical signs
herpes			Result
bronchial catarrh			Sequela
erysipelas			Remarks on any special feature of the case
other infectious diseases			Plan of treatment
* Nature of the prevalent fever			

It is evident that the value of the facts gathered in the answers to such brief card questions as the above, would be in proportion to their number and the accuracy with which they were observed and recorded. In a country embracing so great an extent of territory as ours, it will be very difficult for a general committee of the National Association to select such local or sub-committees in all parts of the country as will be judicious and efficient in distributing the cards

and memoranda to such practitioners in their respective districts as will be best qualified to use them, and prompt in properly arranging the returns and transmitting them to the secretary of the general committee. If each State Medical Society could be engaged in the work of establishing the proper sub-committees in the several districts or counties of its own State, and through a State committee receive the returns from the sub-committees, and after their examination and arrangement transmit them to the general committee of the national organization, it would be more likely to secure results of value, both in regard to quantity and quality, than by any other method. The institution of such co-operative work, bringing into direct practical relations the national, State, and district medical societies, would have a strong tendency to harmonize the interests and increase the membership of all those organizations, and whatever can be done which will induce practitioners generally, to observe more carefully and keep a written record of the cases coming under their care, will be of great benefit to them, by increasing the accuracy of their knowledge and the extent of their mental discipline. To establish such a system of collective investigation throughout our country as is proposed, will require time and much judicious work on the part of the general committee having it in charge. But the subject is of sufficient importance to merit the attention of our readers, and elicit suggestions in regard to the best methods of procedure from those who are willing to give it their attention.

THE ST. LOUIS MEDICAL SOCIETY—This Society, by direct action, has denied having either requested or authorized the presentation of the preamble and resolutions asking for a revision of the Code of Ethics, which were offered by a member at the meeting of the American Medical Association in June last, and promptly laid on the table.

CHOLERA AND YELLOW FEVER—No new developments of importance have taken place in regard to either of these diseases during the past week. The Board of Health of San Francisco, fearing the introduction of cholera from China, has declared all Asiatic ports infected, and ordered all vessels arriving from such ports to undergo full quarantine. Many, failing to trace any positive evidences of the importation of cholera into Egypt, are beginning to discuss actively the question whether the present plague in that country is not a disease essentially different from the Asiatic cholera, and dependent on local causes. It is to be hoped that the many special

commissions appointed or encouraged by the European governments, for investigating the nature of the present cholera epidemic in Egypt, will be sufficiently free from the influence of preconceived theories, to give reports embodying only plain and fully verified facts

FOREIGN CORRESPONDENCE

PARIS LETTER

PARIS August 8th, 1883

Of all the theories propounded at the Paris Academy of Medicine, I know of none more absurd than that enunciated by M. Decroix, a retired army veterinary surgeon, on the depopulation of France, and the degradation of the French nation. In his paper, which he read at a meeting of the Academy, the author endeavored to make out that these conditions were brought about by the abuse of tobacco, which, in France, contained at least 9 or 10 per cent of nicotine, and which, by its pernicious influence on the system, caused a diminution in the number of births and an increased rate of infantile mortality. Whether this theory was considered worth listening to or not, the members present paid no attention to the reading of the paper, which was performed in the midst of noise and marked indifference in the Assembly.

To produce anæsthesia for surgical purposes, the smallest amount of chloroform as pure as it can be obtained, is to be poured on the linen on the part covering the space between the nose and the mouth. This the patient inhales, and at the end of the expiration that follows, a second drop is poured on the linen, which the patient inhales, so that at each inspiration the patient takes in one drop of chloroform vapour mixed with the inspired air. The patient is recommended to breathe naturally, and, if after a few minutes anæsthesia is not produced, two drops instead of one are to be poured. This has been the subject of a communication by Dr Seyraud of Bordeaux. In this paper the author objects to the "siderative" method employed by surgeons in the administration of this substance, and he proposes in its stead the following method, to which he has given the name of "Methode Dosimetrique." It consists of a piece of batiste folded twice and extended over the face of the patient in such a way that only the nose and mouth are covered by it. One single drop of chloroform on the linen for each inspiration. In this way complete anæsthesia is obtained in seven or ten minutes, which is arrived at gradually without the intervention of the stage of excitement or of hyperæsthesia, even in alcoholic subjects and the most nervous women. As soon as anæsthesia is obtained, the chloroform must be suspended for one or two minutes and then administered in doses of two drops per minute, on an average, if it is desired to prolong the chloroformic sleep independent of operation. If the patient has a tendency to wake up, the dose should be increased, and the author has by this means been enabled to keep up anæsthesia for an hour and a half. The advantages claimed for this method, are the procuring of

anæsthesia more rapidly and more economically than with the method in vogue, and the avoidance of the risks inherent to chloroform.

Cholera of the genuine Asiatic type, which broke out in Egypt about the 22d of June, has naturally excited considerable alarm among the inhabitants of Europe. In France, while every precaution is taken to prevent actual invasion, the sages are expatiating on the etiology and nature of the disease. Nothing particularly new has been advanced. While it is believed by some, and they are in the majority, that every outbreak of Asiatic cholera can be traced to India, others affirm that it may originate *de novo*. M. Jules Guérin is the invincible representative of the latter theory, and at a recent discussion of the subject at the Academy of Medicine, he reiterated the opinion he expressed more than forty years ago at the same Academy, that the disease was not contagious except under certain conditions of aptitude and receptivity, that each epidemic was purely local, and that the evolution of the disease, like that of other epidemics, was the product of certain "medical constitutions" resulting from successive modifications of the atmosphere and of the organism. This view was vehemently opposed by M. Fauriel and others, who expressed themselves in rather strong terms against the English, whom they condemned as being too mercantile and selfish to allow their own interests to suffer in any way. They referred to the non-observance by the English of quarantine, though they themselves are beginning to find out that practically such a stringent measure was of itself of little use in effectually checking the spread of the disease. But I am afraid that our learned confreres were actuated more by political than by purely scientific considerations, as their language, and indeed that of the French press in general, has been stamped with great acrimony against the English, so much so that the latter have considered it necessary, by semi official communications, to remonstrate with our French neighbors, and, it is to be hoped, with some effect, for, after all, there can be no objection to the discussion of international interests, but it must be carried on with loyalty and courteous impartiality.

It was to be expected that M. Pasteur, the great "microbist," as he is called, must have his say in the matter. He has organized a scientific mission which is to proceed to Egypt, to study the nature of the malady and he foresees the possible existence of a microbe in the blood or in some of the viscera, which, if discovered, would marvellously simplify not only all prophylactic measures, but would open a new field for the more rational therapeutics of the disease. The mission is composed of men selected by M. Pasteur, and the necessary funds and sanction have been granted by the Parliament for the purpose. The following are the names of the members: M. M. Roux and Thuillier, attached to the laboratory of M. Pasteur; Strauss-Agrege, of the Faculty of Medicine of Paris, and Nocard, professor of veterinary medicine, all well known for their biological researches. M. Pasteur has given them written instructions, not only as regards the prosecution of their investigations, but for their own protection against possible infection.

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER.

The subject of a possible outbreak of cholera in the United States still excites more or less speculation in the medical and sanitary circles of this city, and although the general opinion seems to be that we have little to fear before next summer, due precautions should be taken to prevent it from obtaining a foothold in our midst, or that, in case the disease does effect a landing every means are used to keep it from spreading and becoming epidemic. It is possible, nay, probable, however, if cholera again appears abroad next summer, that it will reach the United States in spite of all quarantine against it, for, judging from past experiences, proper precautions will not be taken until it is too late and the harm done. One ship's cargo from an invading army, and, as it is us as the hosts of an invading army, and, as it is pretty sure that the enemy will obtain a landing, the means for repelling its attacks are exceedingly important. It is a well established fact that cholera depends for sustenance on filth, and, on the other hand, cholera rarely invades districts free from filth, contaminated soil, air or water supply. It follows, therefore, that the best weapon we can use against cholera is cleanliness. It is hardly necessary to say that there is plenty of food for cholera in our large cities at present. Judging from the present sanitary condition of Philadelphia, it will have a feast when it reaches this port. Dead dogs and decaying vegetable matter, and putrid garbage of all kinds abound in back alleys even in the center of the most densely populated part of the city. The Board of Health are powerless in the matter, all they can do is to report it to the Highway Department, and the Highway Department has let out the cleaning of streets to contractors who remove the filth when it suits their convenience. We greatly need a general Board of Public Works in this city, with representatives from each department, who shall have a general oversight of the city government. As it now is, each department is independent of the other, and there is not that harmony of action that there should be. But there is small probability that any reform will be effected, the city will be, in all probability, as dirty next year as this. The cholera may come, and if it does, there will be a feeble effort by an inefficient city government to repel the foe, and then it will break loose to do its work of destruction.

A party of prominent Philadelphia physicians recently visited Cresson Springs, to be the guests while there of the Juniata Valley Medical Association. The party consisted of Drs Wm B Atkinson, Wm M Stewart, Philip Leidy, John V Shoemaker, W S Blackwood, O P Rex, Joseph D Nash, F B Hazel, F E Stewart, H M Richards, H T Taylor, L K Baldwin, Carl Leiter, Chas B Nancrede, Rosh Leaman, Geo F Shattuck, J D Schoales, Alfred Jones, Wm Gardiner, Horace Ladd, L S Clark, Chas M Seltzer, Benj F Baer, James Graham, Napoleon Hickman, F M Perkins, and from Camden, N J, Wm Izard, A M Mecray, E L B Godfrey

The medical meeting which they went to attend was an interesting one, and the frolic afterward still more so. By request of the officers of the Keystone Hotel Company, an inspection was made of the Mountain House and Surroundings, and of the mineral springs for which Cresson is noted.

The waters of Cresson Springs are worthy of note, both as regards variety and medicinal qualities. A spring of cold, sparkling water, protected by a handsome pavilion in front of the hotel, refracts the light deceptively through its crystal depths, giving the impression to the beholding eye that the stones at the bottom are in easy reach. The water of this spring is *absolutely pure*, yielding to analysis neither organic matter or mineral salt, and the cool liquid is not only a refreshing summer drink, but has been highly recommended in the treatment of the rheumatic diathesis, certain diseases of the kidneys, etc. Another spring is ferruginous, another aperient, containing a large proportion of magnesium, and a third is strongly impregnated with alum, and appears useful in various vaginal and uterine disorders.

In addition to the advantage presented by its waters, the climate of Cresson is cool in the summer, and the surrounding mountain scenery some of the most beautiful of central Pennsylvania.

A CASE OF PUERPERAL ECLAMPSIA.

I was called to see Mrs A R, aged 17 years, primipara, on the morning of Aug 5, 1883. I found her deeply comatose, and just having a frightful convulsion. On inquiry I learned from her husband that she had complained of severe headache all night, and that she frequently micturated. Towards morning she vomited. She had anasarca, especially in the face and extremities. She expected to be confined towards the last of the month. On examination I found no dilatation of the os. I gave a hypodermic injection of 6 grs of hydrate of chloral which rendered her conscious. I then left, and at noon found her having convulsions again. I gave another injection of chloral hydrate, and as soon as she could swallow, I gave her 20 gtts of tinct verat viride. This caused severe nausea and vomiting for a while, and then she became quiet. Before midnight I gave her two injections of chloral hydrate and one of 20 gtts of tinct verat vir. After midnight I decided to fall on chloral hydrate alone. Dr Fritz, my consultant, thought I would, probably, get the best effects from that drug. I then gave her three injections of about 8 grs from 1 to 5 A M, Aug 6. In these four hours she had three spasms. At 5 A M I left, and returned at 8 A M, when I found her just having another spasm, the first since I left. I gave her another hypodermic injection of 40 grs, At 9 30 A M I gave her a rectal injection of 40 grs, and ordered one every four hours. In the evening she was half conscious.

The next morning, Aug 7, she was altogether unconscious. She passed no urine from 4 A M Aug 5, to 5 30 P M, Aug 6. She had bitten her tongue fearfully before I saw her the first time. She was deeply and continuously comatose from 4 P M Aug 5 to

about 4 P M Aug 6 About 4 A M, Aug 8, labor pains came on At 9 A M, when I reached the house, I found the os dilated to admit one finger At 3 30 P M I ruptured the membranes, and at 4 45 I delivered her of a healthy boy She had no convulsions during nor after labor The only medicine she took before, and for some time after labor, was "imperial" drink I then prescribed tinct ferri chloride No abscesses resulted from the injections The convulsions were evidently of uræmic origin, as they ceased altogether after the kidneys began to act Chloral hydrate, administered by enema and in sufficient doses, will, I believe, control the spasms more efficiently, as well as more lastingly, than any other agent

W F HERTZOG, M D
NEW JERUSALEM, Pa, Aug 20, 1883

CORRECTION

WALNUT HILLS, CINCINNATI, Aug 23, 1883
DR N S DAVIS—*Dear Sir* My article in No 5 contains an error of statement The sentence referred to is on page 138, second column, and should read as follows If aortic aneurism be eliminated, absence of abnormal precipitation of the carotid pulse is conclusive, in any case, of absence of an open state of the aortic valves Yours truly,

A T KEIT

SOCIETY PROCEEDINGS

REPORT OF THE SECTION ON STATE MEDICINE

CLEVELAND O, Tuesday, June 5, 1883

The Section of State Medicine convened in the United States Court room at 2 30 P M, with Dr Foster Pratt, President, in the chair

After some preliminary remarks by the President, the section fixed upon the hour of 2 30 P M Wednesday to hear the report of the working of the Illinois State Board of Health, and especially as to its actions in regard to regulating the practice of medicine

Dr A L Gihon, of the Navy, read a paper entitled "Medical Education the Fundamental fact in Medical Ethics," with accompanying resolutions The discussion was opened by Dr Rauch, Secretary of the State Board of Health of Illinois, and was followed by Dr Billings, of the Army, Hibberd, of Indiana, Hakes, of Pennsylvania, Sheehan, of New York, Tuckerman, of Ohio, and Bush, of Delaware

On motion of Dr Gihon, action upon the resolutions was deferred until Thursday at 2 30 P M

Section adjourned

CLEVELAND, O, June 6, 1883

The Section met in the chapel of the Young Men's Christian Association, and was presided over by Dr Pratt

Dr H A Johnson, of Illinois, read his report, entitled "The Working of the Illinois State Board of Health"

By consent, members were allowed to ask questions of Dr Rauch, Secretary of the State Board of Health of Illinois This somewhat novel, though

very interesting part of the proceedings, was made to cover a detailed account of the practical functions of the Board

Dr Pratt, of Michigan, offered the following
Resolved, That the labors of Dr William Farr, of England (recently deceased), in the origination, classification, and compilation of vital statistics, labors begun in 1838, and perseveringly, wisely, and ably continued by him for nearly half a century, are recognized by the medical profession of the United States as an enduring monument to his ability and learning as a physician, as the real incentive to and the foundation of our own sanitary work, and as a perpetual blessing to present and to future generations of our universal humanity, entitling his name and fame to stand with that of other great men whose genius and labors have resulted in beneficent revolutions of the medical, surgical and sanitary thought and activities of the civilized world

Passed, and referred to the Association for adoption

Section adjourned

THURSDAY, June 7, 1883

The Section met in the Y M C A chapel at 2 40 P M, and was called to order by the Secretary, who on motion of Dr Gihon, took the chair in the absence of the chairman

After the minutes had been read and approved, Dr Gihon called up the resolution offered in connection with his paper, read before the Section on Tuesday, and made the special order of the day In opening the discussion, Dr Gihon took occasion to reaffirm his allegiance to the organic law of the American Medical Association and to disclaim the partisan character, which had been attributed to his paper by those who had not understood its purport His endeavor, throughout, had been to show that the narrow spirit in which medical ethics had been interpreted if carried to its legitimate conclusions would necessarily ostracise such eminent reformers as Professors Bowditch, Cabell, Stephen Smith, and Johnson, while it would place under ban every liberal minded member of the profession

Moved by Dr Hake, of Pennsylvania, that the resolutions be taken up *ad seriatim* The first, after a verbal amendment by Dr Didama, was discussed by Dr Rochester, of N Y, Dr Hake, of Pa, Dr Hopkins, of N Y, Dr Baldwin, of Ala, and others, was put upon its passage and lost

The second resolution was also amended, but in such manner as not to compromise its spirit, and as Dr Gihon said of this resolution that it embodied all that he considered of importance in the theme of his paper, the discussion enlisted much interest It was entered upon by Dr Baldwin, of Ala, Didama, of N Y, Pratt, of Mich, Hay, of Ill, Vaughan, of Mich, Billings, of U S A, Bull, of N Y, Hibberd, of Ind, Hopkins, of N Y, Crago, of N Y, Johnson, of Ill, etc

The importance of State boards of examiners was urged by the advocates of the resolution, and agreed to without exception by those who, at the same time, did not believe that the adoption of the resolution would influence legislators in the formation of

such boards The resolution was lost, and on motion, all the resolutions were laid upon the table

Dr A N Bell, of New York, introduced the following resolutions

Being impressed with the truthfulness and importance of the memorial of Parliamentary Bills Committee of the British Medical Association under date of March 17, 1883, the American Medical Association urge upon the Congress of the United States the subject of competent medical and sanitary service, and proper provision for its maintenance on board all trans-oceanic passenger vessels, and that a committee of five be appointed to promote this object, and report upon the condition of the subject at the next session

The resolution was passed and referred to the Association for adoption

On motion, the Section on State Medicine adjourned *sine die*

THOMAS L NEAL, M D,
Sec'y Section State Medicine

FOSTER PRATT, M D,
Chairman Section State Medicine

REVIEWS

BOOKS AND PAMPHLETS RECEIVED.

Pathology and Morbid Anatomy of Tubercle By N Senn, M D

A Case of Abdominal Cystic Tumor, when, Seven Years after Removal by Laparotomy, a Second Operation was demanded By W F Atlee, M D (Reprint)

A Case of Fungosities of the Bladder By W F Atlee, M D (Reprint)

The Essentials of Pathology By D Tod Gilliam, M D P Blakiston, Son & Co, Philadelphia

Report of the Health Officer of the District of Columbia, 1882

Bulletin de L'Academie de Medicine, Paris

Bulletin de la Soc Chimique, Paris

Archives Medicales Belges

Canada Medical Record

Canadian Practitioner

St Petersburgs Medu Wchenschrift

Aerzliches Vereinoblatz für Deutschland

Pennsylvania Hospital for the Insane, Report for 1882

Transactions of the Medical Society of West Virginia, 1883

MISCELLANEOUS

THE seventh annual meeting of the American Dermatological Association will be held at the Sagamore House, Green Island, Lake George, August 29, 30 and 31 The following papers are announced

Dr Piffard Treatment of Acne Dr Hyde A Study of the Coincidences of Syphilitic and Non-Syphilitic Affections of the Skin Dr Graham General Exfoliative Dermatitis Dr Stelwagon Impetigo Contagiosa Dr Robinson Alopecia Areata Dr Duhring 1 On the Value of a Lotion of Sulphide of Zinc in the Treatment of Lupus Erythematosus 2 Report of a Case of Ainhum with Microscopic Examination Dr Atkinson A Case of Multiple Cachectic Ulceration Dr Sherwell 1 Pseudo-Scoriasis of the Palm 2 Malignant Papillary Dermatitis Dr Bulkley 1 A Hitherto Undescribed Vegetable Parasite Found on the Human Skin 2 A Clinical and Experimental Study of Pruritus Dr Van Harlingen Experiments in the Use of Naphthol Dr Fox A Trip to Tracadie The President, Dr Taylor 1 Peculiar Changes Observed in the Non-Ulcerating Tubercular Syphilide 2 Certain Appearances of the Initial Lesion of Syphilis at its Beginning

THE NUMBER OF MEDICAL PRACTITIONERS IN PARIS.—The medical profession in Paris comprises 1,915 doctors of medicine, 12 doctors of surgery, 83 health officers, 43 foreign medical men, 1,500 midwives, 845 apothecaries and 95 veterinary surgeons Among the doctors of medicine are two ladies, one French and the other Russian The population of Paris is estimated at 2,239,928 The senior medical man is M Segalas, who was born in 1792 and took his degree in 1817, next in seniority comes Dr Ricord, the celebrated syphilographer, who was born in 1800 and took his degree in 1826 The oldest midwife obtained her diploma in 1815 She declared that during the sixty-eight years she has been in practice she had, on an average, 100 births a year, so that she has during that period brought 6,800 children into the world —Paris Correspondent *Lancet*, June 30, 1883

UPON the affidavits of Drs Alfred Stille and Hayes Agnew, the court has granted a preliminary injunction restraining the circulation and sale of a book entitled "An Eptome of Medicine and Surgery," published by S M Miller, M D, of Philadelphia Drs Stille and Agnew claim that their lectures have been stolen and published without authority

DR PITMAN, Registrar of the Royal College of Physicians, London, Mr Saunders, Surgeon Dentist to the Queen, and Mr Porter, of Dublin, one of the Surgeons to the Queen in Ireland, have been knighted Dr Banks, of Dublin, has declined

DR ST JOHN ROOSA, of New York, and Dr Blake, of Boston, have been added to the Committee on Organization of the Third International Otological Congress, which is to meet at Basle, Switzerland, in the first week of September

THE sixteenth annual meeting of the Canada Medical Association will take place at Kingston from the 5th to the 7th of September Dr Mullin, of Hamilton, is the President

NECROLOGICAL

CURTIS, JOSIAH, M D, born at Wethersfield, Conn, April 30, 1816, died at London, England, August 1, 1883, while traveling. He was fitted for college at the Academy at Monson, Mass, and received his M A degree from Yale College. He taught school for a time, and was principal of the Salem (N J) County Academy. He taught also in Philadelphia, and while there studied medicine and graduated M D at Jefferson Medical College in 1843. He settled to practice in Lowell, Mass. In 1849 he removed to Boston. Dr Curtis made the study of the sanitary management of large cities a prominent branch of his profession, and twice visited Europe in pursuit of the subject. He assisted in the preparation for publication the mortality statistics of the U S census of 1860. In 1861 he was Secretary of the Boston Sanitary Association. He served as brigade surgeon in the late war, served in various stations. After being mustered out in 1865, with a brevet promotion, he took up his residence in Knoxville, Tenn. In 1872 he accompanied the U S Geological Survey as Surgeon, Microscopist and Naturalist, traversing portions of the Rocky Mountains, including the Yellowstone Lake and its many geysers. In 1873 he became chief medical officer to the U S Indian Service, which he organized and placed on a useful footing. He resided for many years in Washington, where he is well and favorably known. He was a member of the Massachusetts Medical Society, and of the American Medical Association since 1847, and of a number of other scientific and literary associations. Dr Curtis was an industrious and faithful worker in various fields of scientific research, and a contributor to medical and other periodical literature. He was the discoverer of collodion, or liquid gun cotton.

J M T

JEROME, JAMES H, died in the seventy-first year of his age, in the city of Saginaw, State of Michigan, August 8, 1883, of inflammation of the liver, after an illness of about three months.

Funeral services were held at his late residence on the following day, when his remains, accompanied by his family, were borne away to his family burying-place in Trumansburg, New York.

Dr Jerome was a man of vigorous intellect, keen perceptions, retentive memory and independent character, and his manners of mingled courtesy and dignity marked him as old-school gentleman, alive to the issues and important questions of the day and age in which he lived.

He helped to organize, in 1866, the Michigan State Medical Society, did much to shape its policy, was twice elected its president, and did as much as any other member to promote its interests.

His high sense of honor, especially among his professional brethren, and his stout opposition to every infringement of the code of medical ethics, both in the Society and out of it, made him an enemy to pretenders, of every description.

His domestic relations were characterized by deep

affection, and his genial smile was the sunlight of the household, where his loss is most keenly felt. His intercourse among his friends was of the most cordial character, his hospitality ample and his friendship deep and lasting. Quick to oppose what he thought wrong in a friend, as in others, he reminds us of the proverb

"Faithful are the wounds of a friend, but the kisses of an enemy are deceitful."

His funeral was attended by about twenty five physicians from different parts of the State, who came hither to pay their last tribute of respect, and to assist in perpetuating his memory.

Following the funeral services, the physicians in attendance met at the parlors of the Taylor House in Saginaw, and organized by calling Dr H Lupper to the chair and choosing Dr Geo E Ranney secretary. The life and character of Dr Jas H Jerome was then reviewed by a number of speakers who had known him best.

On motion of Dr Ranney, the chairman was requested to appoint a committee of three, making Dr C V Tyler chairman, whose duty it should be to present, in the form of resolutions, the sense of the meeting concerning the life and character of the deceased, and furnish a copy of the same to the family, also copies to the local press and to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. The motion prevailed, and the chairman appointed such committee, which committee has, so far as practicable, embodied the views and feelings of those present in the following preamble and resolutions.

WHEREAS, We, professional associates of the late Dr Jas H Jerome, assembled to do our last sacred duty to his remains, feel, intermingling with our sorrow and regret, great admiration for his brave and true qualities of head and heart, his loyalty to the interests of his profession, his animated conversation, his vigor in debate, his joyful and happy countenance, his cordial salutation and welcome which none of us can ever forget, therefore,

Resolved, That while we bow with submission to the rulings of a Divine hand in removing from us a beloved member, our hearts are deeply stricken, and we will hold his character in grateful remembrance and endeavor to emulate his example.

Resolved, That our sympathy and condolence are herewith tendered his sorrowing family in their great bereavement.

C V TYLER,
GEO E RANNEY, } Committee
HENRY B BAKER, }

The meeting then adjourned.

GEO E RANNEY, Secretary

COX, CRISTOPHER C, M D, of Maryland, was born in Baltimore, Md, August 16th, 1816, died in Washington, D C, November 25th, 1882. He was the son of Luther J Cox and Maria (Kencer) Cox. He entered Yale College in 1833 and graduated in 1835. Medicine was his preference as a profession, and after reading and attending three full courses at the Washington Medical College, in Baltimore, he received the degree of M D. Shortly after graduating he

settled to practice in Baltimore, Md, but in 1843 removed to Easton Talbot. In 1848 he was appointed Professor of Medical Jurisprudence and Institutes of Medicine in the Philadelphia College of Medicine, but resigned after delivering one course of lectures. Dr Cox was an accomplished scholar, an eloquent public speaker, with a fondness for public life and position. In 1854 he was nominated for Congress in the First District of Maryland, but was not elected. On the breaking out of the war between the States he took part with the general government, and was appointed a surgeon in 1861. In August 1862 he was made Medical Purveyor of the Middle Military Department. In 1864 he was elected Lieutenant-Governor of Maryland. In 1868 he was appointed Commissioner of Pensions, and the following year was elected to the chair of Medical Jurisprudence and Hygiene in the Medical Department of the University of Georgetown College. In 1871 Dr Cox was, on the reorganization of the Health Department of the District of Columbia, appointed on the Board of Health, and was by the Board chosen for several terms their President. Dr Cox was a member of the Medical and Surgical Faculty of Maryland from the period he began practice. He became a member of the American Medical Association in 1848, was appointed chairman of various important committees, and for years made admirable reports on necrology. He was Vice President in 1863. He was active and influential in the organization of the American Public Health Association. He was a Secretary of the Medical Society of the District of Columbia, and a number of the medical associations of the District, the Historical Society of Maryland, and of many scientific and literary societies. He was a chaste and beautiful writer, and has contributed some beautiful verses that will hold their place in literature. In 1879 Dr Cox was appointed chief executive officer to superintend the United States Department in the International Exhibition in Australia. He was well fitted for this responsible position by his familiarity with the duties and requirements, as he had served acceptably in an official position at the Centennial Industrial Exhibition at Philadelphia in 1876. But his health broke down and he returned to the United States, but did not regain his health. He was tenderly cared for by his wife and daughters. His remains were taken to Eastern Maryland where they are interred.

J M T

COOPER, GEORGE F, M D, of Americus, Georgia. Was born in Wilkes county, Georgia, July 31, 1825, died at Americus, Georgia, December 3, 1882. He studied medicine in Harris county, Georgia, took his first course of lectures in Transylvania University, and graduated in Jefferson Medical College, Philadelphia, in 1845. In the winter of 1847-8 he took a third course in Philadelphia, and spent the winter of 1850-1 in Charity Hospital, New Orleans. He practiced medicine in Perry, in Savannah, and afterwards in Americus. In 1856 he entered the Baptist ministry. In 1861 he entered the Confederate service as surgeon of Lawton's brigade, in which he re-

mained to the close of the war. In 1846 he married Miss Cornelia I. Stacey, of Houston county, Georgia, and in 1878 he was a second time married to Miss Carrie M., daughter of Prof. A. C. Kendrick, M D, of the university at Rochester, N. Y. He leaves a widow, six children, and four grandchildren.

Dr Cooper was a man of prominence in Georgia, not only as a physician but also as a minister of the gospel, having served churches at Lebanon, at Dutton, at Albany, and at Americus. During his ministerial career he continued in practice of medicine, and devoted the later years of his life wholly to medicine.

ROBERT BATTEY, M D, of Georgia

CARMICHAEL, GEORGE FRENCH, M D, was born in Fredericksburg, Va., March 9, 1806, graduated in medicine April 7, 1828, at the University of Maryland, died at Fredericksburg, Va., Aug. 27, 1882, aged 76 years. Dr Carmichael was a leading physician in Fredericksburg for upwards of fifty years, where he spent his life, with the exception of three years during the civil war when he was a surgeon in the Confederate army, and stationed at Danville, Va., in charge of a large hospital. He had a most exalted appreciation of the dignity and honor of his profession, and no consideration could induce him to swerve from what he believed to be the strict line of duty. No man ever enjoyed more entirely the love and respect of all classes of the community in which for so many years he had been a public benefactor than did Dr Carmichael. No kinder or more generous heart ever beat in human bosom. His unselfish nature, particularly, fitted him for the calling which, of all others, draws for the best and noblest qualities of our nature, and his life exemplified the character of a Christian gentleman.

F. D. CUNNINGHAM, of Virginia

HAYNES, TIMOTHY, M D, Concord, N. H., was born in Alexandria, N. H., September 5th, 1808, died of paralysis at his residence in Concord, May 28th, 1883. He was the son of David and Rebecca Haynes. Having fitted himself for the study of medicine he pursued his professional studies under Dr. Mussey, of Hanover. For some time he served as Demonstrator of Anatomy at Dartmouth College. He attended his last course of lectures at the Jefferson Medical College, in Philadelphia, where he graduated as M D in 1836. He at once settled to practice in Concord and speedily acquired a reputation for skill in surgery. He built up a fine anatomical museum, which was destroyed in the great fire of 1851. During his earlier professional life he instructed many students. In 1849 he was a delegate from the Merimack Pathological Society to the American Medical Association. He made a study of the claims of the water cure treatment of diseases, and gave some encouragement to the establishment of an institution for the special treatment by this method. Dr Haynes attended closely to practice, and held a prominent position in the profession. About 1843 he was united in marriage to Laura Brackett, of Littleton, who survives him, as do three daughters.

J M T

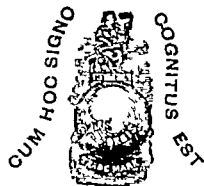
-Philadelphia, December 22d, 1882

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HENRY TRIMBLE,

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DR F A GENTH

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SAURDAY, SEPTEMBER 1, 1883

No 8

ORIGINAL ARTICLES

REMARKS ON INTRA-PELVIC INFLAMMATION IN THE CHRONIC FORM

BY W H BYFORD, M D, OF CHICAGO, PROFESSOR OF GYNECOLOGY, RUSH MEDICAL COLLEGE

[Presented to the Section on Obstetrics and Diseases of Women]

The terms parametritis and perimetritis are erroneously supposed by many to include the whole subject of intra-pelvic inflammation. These terms are misleading, because as now often used they present to the mind the idea that all cases of inflammation not confined to the uterus must belong to one or the other of these.

Actual observation teaches the important fact that perimetritis and parametritis generally exist together, and that they are usually complicated with inflammation of the uterus, and not infrequently the ovaries and fallopian tubes are involved. When we use the terms perimetritis and parametritis, if anything like a definite diagnosis is made we ought to understand that the greater *intensity* of lesion is manifested in one of the tissues, but that inflammation extends to the others also. It is apparent, therefore, that to determine the tissue in which the inflammation is located is often difficult, simply because uncomplicated cases are extremely rare.

The complexity of the lesions of the pelvic organs and tissues might be inferred from the almost absolute unity of the vascular and nervous supply, and the fact that the genito spinal center is the common controlling influence.

I make these general remarks upon the pathology of intra-pelvic inflammation, as an introduction to what I have to say of the various forms of its manifestation in different organs and tissues within the pelvis.

The more obvious conditions of chronic parametritis are

First—Suppuration, or chronic pelvic abscess, located more frequently, but not always, in the broad ligament, the consequence of cellulitis. Chronic purulent accumulations are often found also behind the uterus, and are doubtless the result of local peritonitis.

The chronic pelvic abscess is generally the sequel of acute inflammation, and attains chronicity from the imperfect evacuation of the pus after acute inflammation has terminated in suppuration. The dis-

charge in these cases, may be continuous, but the suppurating cavity, in not being completely evacuated, is consequently not obliterated.

The evacuation is deficient sometimes because the outlet is through a tortuous canal, at others because the termination of the canal is in the rectum or bladder. The muscular fibers of the walls of these receptacles, after a certain amount of pressure is taken off by partial evacuation, contract around the opening, and do not yield until the accumulation renews the pressure sufficiently to overcome their resistance. These processes of partial evacuation and accumulation are repeated indefinitely. Again, temporary interruption of the purulent discharge may be caused by the distal extremity of the evacuating tube being higher than some portion of the suppurating cavity.

If the abscess is located in the connective tissue, the elasticity of that tissue will very materially diminish the size of the suppurating cavity each time the evacuation takes place, and eventually may entirely obliterate it. It does not always do so, however. The sufferings experienced by the patient in these cases consists in pyæmic and septic symptoms, resulting from the resorption of the pus and debris of decomposing material contained in the cavity. While the vital energies of many patients will sustain them until the process of evacuation is completed, others will die from exhaustion.

The remedy in such cases is found in surgery, and consists in making a more direct outlet through the vagina, large enough to at once completely evacuate the pus and enable the surgeon to cleanse and disinfect the cavity. Where the evacuating canal is tortuous or too small it may sometimes be dilated by instruments until the cavity can be evacuated and washed out. Where the pus is accumulated in a sac formed in the peritoneal cul de sac behind the uterus, the difficulty will not be so easily overcome by enlarging the opening, as the pyogenic cavity is not surrounded by elastic tissue, as in the broad ligament. It will, as a consequence of this latter fact, require a longer time to fill up by granulation. In such cases we may hasten granulation by stimulating the cavity with injections of a weak solution of permanganate of potash, swabbing it out with iodoform or some other stimulating remedy. A cavity situated in this position will bear such stimulation better than one situated in the broad ligament. In cavities thus located we will often find decomposing coagula the remains of a hematocoele, the most common origin of abscesses in this part of the pelvis.

The suppurating variety of intra-pelvic inflamma-

REMARKS ON INTRA-PELVIC INFLAMMATION

[Se

tion may, however, be primarily chronic, and never rise above that grade.

In such cases the inflammation persists for several years. A considerable quantity of pus is formed without hectic or other symptoms of absorption, save a general feeble state of health. In these indolent abscesses the pus is formed and remains enclosed in the cavity for a very long time, with, in fact, very little tendency to evacuation. I saw one case of this kind in which I know from observation that pus was retained for three years. Upon first seeing the patient I was so well assured of the presence of pus in the right broad ligament that I proposed to puncture it. The patient, however, declined, and, residing in a distant city, went home. Three years afterwards I made an opening in it, and removed a quantity of dirty putrid sero-pus. The patient was then in an advanced state of phthisis, and died in a few months.

Another case I saw with Dr T D Fitch. The patient assured us that the tumor had been discovered seven years before by her medical attendant, who told her she had cellulitis of the broad ligament, which had already suppurated. There were eight ounces of the same thin pus as in the former case.

A cavity that has contained pus for so long a time has ceased to be pyogenic, its walls are thin and yielding over a large surface, and when evacuated has no tendency to fill up again. These cases are sometimes connected with the tubercular diathesis.

Second — Chronic parametritis is often met with when there is a decided tumefaction—in one of the broad ligaments, more frequently than otherwise—the remains of an acute attack, and, when not noticed or attended to properly, is a latent focus of phlogosis that may easily be elevated into the acute grade. We frequently meet cases of this kind among poor patients, who are obliged to exert themselves more than is compatible with the process of resolution. The consequences are that the woman has repeated returns of acute attacks until suppuration takes place. Sometimes in these or even more favored patients injudicious thoroughness and earnestness in an examination to ascertain the exact condition of the patient develops an acute inflammation that inflicts fearful suffering, and perhaps cripples the patient for life. Or, again, without sufficiently careful examination to ascertain the existence of this nodule of inflammation, irritating applications are made to the uterus, or a pessary is introduced that presses upon the locality of the effusion, or the womb is lifted high enough to make traction upon the diseased ligament, to give origin to acute inflammation. When the tumor is small, or in some remote part of the ligament, these mistakes are very liable to occur. There is no doubt also that in numerous instances these effusions are primarily the results of chronic inflammation, and have for their origin causes operating less violently. After the absorption more or less completely of the exudate in such cases, the broad ligament may be left thickened, rigid, shortened and irritable for a long time, and become the nidus for an acute attack.

Careful manipulation will enable us to discover any of these conditions without doing damage.

They should always be the object of treatment removed before treatment for chronic metritis. The proper local treatment is hot-water injection and counter-irritation.

The general management is of the first importance and consists of alteratives, tonics, feeding and 1. We should expect and require a long course of treatment for the cure of cases of this kind.

Third — Chronic local *peritonitis* may exist (either as a *separate disease* or a complication of cellulitis, ovaritis, and salpingitis) in the retro-uterine *cul-de-sac*, and over the broad ligaments retaining a displaced uterus in a fixed retroverted or retroflexed position. The fixed position may be maintained by a somewhat solid cohesion of the opposed surfaces of the peritonæal covering of the uterus and the posterior lining of the Douglass pouch. Or by the extension of bands of false membrane that permits of limited motion.

When associated with general chronic pelvic inflammation it is but one item, is obvious and easily detected, but when local peritonitis is the only inflammatory condition it may require much care to diagnose. When I find the uterus turned backward and resisting reasonable force, I suspect this form of chronic inflammation, and if manipulation for the purposes of restoration gives the patient much pain, I am confirmed in such suspicion. Enlargement of the uterus makes that organ, to a certain extent, difficult of placement, and attempts to do so will generally cause pain, but even in such a case the presumption is that there is contiguous inflammation, and all the cautions to avoid aggravating that condition should be observed. An examination per rectum will give us valuable information as to the presence of retroversion and local peritonitis. By passing the finger through the rectum up the posterior wall of the uterus we will ascertain the condition of the peritonæum as to sensitiveness. With the evidence we may thus gain, and by gentle attempts to move or replace the uterus, we can make a pretty definite diagnosis. This inflammation may also exist in the *cul-de-sac* without the malposition of the uterus, in this case the tenderness behind that organ will be sufficiently diagnostic.

Sometimes we find local inflammation limited to the vesico-uterine reflexion of the peritonæum, which may interfere with reposition from anteversion or anteversion of the uterus. In such cases we will find any effort to move the uterus attended with pain, and there will generally also be vesical irritation of an absolute character.

The discovery of peritonæal inflammation in how-ever slight a degree, should be a matter of caution to us against free manipulation for any purpose, and when complicating displacements, subinvolution or chronic inflammation of the uterus should be the main subject of our attention until entirely removed. I am quite sure that the lack of sufficient care in this particular has been the cause of much needless suffering.

This remark, I think, is especially applicable to efforts at replacements of the uterus when that organ is retroverted or anteverted. I would therefore em-

phasize the direction, *not to try to replace* the uterus when such attempts give the patient decided pain. Counter-irritation, hip baths, and large tepid water injections are the main items of local treatment, while the general consists of alteratives, rest and tonics. The latter is of special importance. In many cases, nourishment will be of more value than medicine, as a large number of these patients are profoundly anæmic.

Fourth—Another condition which accompanies a great number of cases, is inflammation of the ovaries and fallopian tubes. The inflammation of the ovary and tube is not often completely isolated, but is a complication of a more diffuse lesion of the broad ligament, including most of its structures. When ovaritis and salpingitis, one or both, are the only manifestation of existing inflammation, and stand apparently alone, there will be a history of preceding inflammation of the surrounding tissues.

The most important, as well as most frequent of lesions, are indurated deposits of lymph, rendering the ligament rigid and deformed, and false membranes or trabeculae that fix the ovary especially, and sometimes surround it in such a way as to constrict the nervous and vascular apparatus.

The ovary thus embraced in semi organized exudation, if its structure is not completely destroyed, is so mutilated that its functions are greatly deranged, and performed with such difficulty as to cause intense local and general suffering.

According to Mr Lawson Tait, the fallopian tubes are often the seat of chronic suppurative inflammation, which accompanies and outlasts the chronic inflammation of the ovaries. Mr Tait regards the disease of the fallopian tubes as a more important factor in the reflex and local sufferings, as well as menstrual derangements, than that of the ovaries. While the position that the morbid condition of the fallopian tubes produces greater menstrual disorder than disease of the ovaries is a subject of controversy, it must be admitted that diseased tubes have a share in causing some of them at least, and I think Mr Tait is right in concluding that in cases of oophorectomy it is quite as necessary for the relief of the patient to remove a diseased fallopian tube as an unsound ovary. This is not, however, admitting that the tubes in a healthy condition have any direct effect in exciting or in any way regulating the menstrual flow. It has long been a demonstrated fact that inflammation in the broad ligament, and other portions of the pelvic tissues, gives rise to pain during menstruation and causes general hystero-neuroses.

The symptoms of inflammation situated in the ovaries and fallopian tubes are, to a great degree, like those caused by disease of the uterus and perimetrial tissues. If there are any symptoms more than ordinarily distinctive of chronic ovaritis it is the suffering during the menstrual period, or the diminution or complete suppression of the menstrual flow.

Sometimes, indeed, connected with ovarian inflammation, there is complete amenorrhœa without any suffering at the periods, or any great amount of derangement of the general health. Gynecologists

not unfrequently meet with cases like the following—viz

A young lady (27 years of age) at the age of 20 had a severe attack of pelvic inflammation that continued about three months, and, after its subsidence, for several months longer she was the subject of moderate pelvic symptoms.

When entire immunity had come about she observed that her menstrual flow was very much reduced in quantity.

For three years she enjoyed a fair degree of health and was able to exercise her vocation as teacher with her usual comfort. At the end of that time, from exposure during severe exercise, she was again attacked with symptoms of acute pelvic inflammation, in all respects, so far as she could remember, similar to the first. From the inception of the last attack to the present time the menses have been entirely suspended, and yet she is now in the enjoyment of robust health.

From the history of this case I think we can fairly infer that both ovaries were the subject of inflammation, of such a character and degree as to damage their structure sufficiently to render them incapable of performing their functions.

More frequently, however, the stroma is not so greatly changed, then the functions of the ovaries are performed with great difficulty, and attended with local pains and extensive and intense reflex suffering. To the symptoms of this latter condition the term ovarian dysmenorrhœa is correctly applied.

Rest, local depletion—in the earlier stages,—and alteratives are the proper treatment. As the symptoms become chronic we may often derive much permanent good from the effects of one or more setons over the seat of the disease. In some of them the disease is so obstinate and the suffering so great as to justify the removal of the ovaries and fallopian tubes.

Fifth—We may have cases of slight diffuse, or circumscribed phlogosis or hyperæsthetic hyperæmia, in which no exudation can be detected, and probably there are no palpable anatomical changes. In this form the nerves and blood vessels are highly excitable because already under the influence of morbid agents that have been acting a long time upon them, but with a degree of intensity short of that condition called an exciting cause. They are in a state of predisposition.

Whether we are justified in speaking of this state of things as inflammation or not, it is quite certainly a departure from a sound condition, in a direction leading to that process. This is probably what authors mean by the term dormant or latent inflammation. It is an actual morbid condition, possessing the two elements, hyperæsthesia and hyperæmia, from which an exciting cause gives rise to the acute form of inflammatory action.

While the inexperienced may awaken acute suffering by injudicious manipulation or the employment of too strong or improper measures of treatment in some of the other forms of inflammation to which I have alluded, this variety of disease that, figuratively speaking,

REMARKS ON INTRA-PELVIC INFLAMMATION

[SEPTEMBER,

the most experienced, skillful, and cautious practitioners into methods of diagnosis and treatment that lead to attacks of acute inflammation, explosive in their suddenness and violence. There is no doubt in my mind that, in its subsidence, acute inflammation sometimes leaves behind it this smoldering susceptibility which lingers for months and even years as a menace to the unwary operator. Without the presence of this relict, or harbinger of acute inflammation, it would have been impossible for our accomplished countryman, Dr George G. Engelmann, to collect so many terribly interesting cases as he reported to the Missouri Medical Society in a paper read before that body, and published in the September (1880) number of the *American Practitioner*. Many of these cases occurred in the hands of some of the most skillful gynecologists. We cannot, therefore, say that they were the result of recklessness or ignorance.

Can we diagnose cases occurring under this division of the subject with sufficient accuracy to enable us to benefit by the knowledge?

Perhaps not always, but in most instances the careful practitioner will have his suspicions aroused by the history and the objective evidence generally obtainable. Judging from my own observation, I should say that the more dangerous cases were those in which this susceptibility was the result of previous attacks of acute inflammation. The history usually is one of inflammation of the pelvis and lower abdominal organs in months or years gone by. A displacement, the nature of which may not have been well understood and treated, and vaguely termed inflammation of the bowels, typhoid, or malarial fever. These by-gone attacks sometimes present so few marked symptoms that their nature cannot be definitely deduced from the history. Most of the when given by an ignorant patient, within my cases of the severe and sudden attacks, within my observation, have taken place where, it was fair to infer, this lingering susceptibility was the consequence of foregone acute attacks instead of a primary condition.

In such a morbid state, what would seem trivial exciting causes may produce terrible symptoms and disastrous consequences under even cautious management.

The untoward inflammation arising out of this susceptibility is also often the result of the too exclusive mechanical ideas entertained with reference to the management of affections of the uterus and other pelvic organs. Most of the pelvic organs lie within reach of the fingers, and instruments devised for the diagnosis and treatment of their diseases. We may thus be led to regard them as the proper subjects for free manipulation, without regard to the fact that they are endowed with vital qualities. We may not govern ourselves in our examinations sufficiently by the complaints of the patient, so much as the desire of finding every possible deviation from the natural position, size and consistence of every organ in the pelvic cavity.

Hence, thoroughness of examination in a mechanical sense is not an uncommon source of danger

In our treatment, the same preponderance of mechanical ideas leads to much mischief. A displaced uterus must be rectified by mechanical means alone, often without sufficient regard to other conditions. I have more than once seen cases where the uterus was fixed by effusion from inflammation, treated by forcible attempts at reposition.

Such attempts, I know, are recommended by men who ought to know better.

As a common practice, it would cause extensive suffering, and fail to be attended by any compensating benefits. Very few intelligent practitioners are so reckless as to disregard the actual existence of inflammation under such circumstances. But many times when the inflammation is so slight as not to give rise to noticeable effusion, and yet be attended with obvious tenderness, mechanical support is resorted to, and the patient exhorted to bear some pain for the good it will bring her to have the uterus kept in position. Such treatment is usually followed by bad results.

Now, to avoid mischief from the use of mechanical support in uterine displacements, the practitioner should consider all cases in which even slight perimetric inflammation exists as unsuitable for the pessary. And when the sensitiveness characteristic of inflammation exists to a moderate degree, the uterus should not be repositioned. Other treatment should be instituted and persevered in until that sensitiveness is removed, before reposition and mechanical support are resorted to. The partisan advocates of the pessary may think this is unnecessary precaution, to which I would reply, that while skillful gynecologists may sometimes disregard this cautious view of the subject, and obtain tolerance of the pessary, even the best of them will sometimes do mischief enough to more than counteract the good they can thereby accomplish.

Our mechanical views as to the treatment of stenosis and flexions of the uterus are apt to betray us into more dangers than those above mentioned. When this slight predisponent condition is present, the use of the sponge, seatangle or other dilating tent is frequently followed by great damage, and it should be remembered that the use of the tent causes this predisposition to inflammation, so that in the consecutive application of tents in any case the second and third become instruments of extreme danger. It is true that in some cases the patient escapes when extra precautions and skill are used, but it is also true that in other cases, notwithstanding all just precautions, terrible results follow.

Now, in all this, I desire to be understood as inculcating the idea that the most accomplished—not alone the ignorant practitioner—may occasionally produce the damaging conditions so appallingly delineated in the paper by Prof. Engelmann above alluded to. Similar remarks are applicable to the use of the stem pessary, either with or without the incisions of the cervix uteri. In estimating the value of mechanical treatment of the uterus we must take into consideration these *exceptional* cases. No man is skillful enough to ignore the fact that he cannot resort to these measures without great hazard to

his patient His practice must be governed by the recognition of the *possible* consequences that may follow

If not warned by his own observation, he should be forewarned by the researches and observations of others I have been cognizant of numerous instances of disaster in all of the mechanical methods I have mentioned, and many deaths have resulted from the employment of some of them These untoward cases are usually not published They ought to be published, however, as danger-signals to warn the unwary of the hazards that beset their paths

As the main object I had in view in writing this paper was to caution my associates against the dangers of converting a chronic pelvic inflammation into a disastrous acute form, I desire to append a summary of suggestions and inferences drawn from it

1 The sometimes terrible effects of examinations or operations in the pelvis do not often, if ever, take place when there is not a perceptible predisposing inflammation

2 The inflammation may be so slight as to be easily overlooked

3 It may be an original condition, the sequence of an acute attack long gone by, or it may be the product of some immediately previous examination or operation, the effects of which have not subsided

4 To avoid the dangers of acute inflammation we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain, and when she complains of much suffering desist at the sacrifice of completeness of diagnosis

5 Complaints of much tenderness to the touch, or the use of instruments, especially parous women, is sufficiently diagnostic of inflammation upon which to base treatment for that condition

6 If, with such tenderness, a thorough examination or an operation is imperative, it should be done under profound anæsthesia There is no question, in my mind, that much less danger of ill effects is incurred in making examinations or operations on susceptible subjects, under the free use of anæsthetics

7 Examinations or operations should not be repeated until the effects of the first have entirely passed off

8 As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus it should be always suspected and its diagnosis be carefully considered in all cases of metritis

9 When chronic parametritis is present it should be the chief, if not the exclusive object of treatment until removed

10 It is not safe to use the sound, sponge-treatment, or intrauterine stem when there is perimetritic inflammation

11 It is especially dangerous to replace a displaced uterus, when it is bound down by inflammatory adhesions, by any means which will overcome its fixedness by force

12 The use of pessaries or supports of any kind which find their lodgement in the pelvis is generally followed by disastrous consequences when there is even slight primitive inflammation

13 All local treatment of the uterus must be conducted with the greatest care in all cases where this complication is present

FRACTURES OF THE LONG BONES

BY JAMES R. TAYLOR, M.D., NEW YORK

[Read before the Surgical Section of the American Medical Association at the meeting in Cleveland June 6 1883]

MR. CHAIRMAN AND GENTLEMEN

In the limited time at my disposal I must greatly abbreviate the matter which I had prepared to offer on this occasion I may claim, therefore, that it will not be possible for me to do justice either to my subject to myself while omitting such large portions of a ~~fracture~~, which, in the nature of things, should have been presented as a whole I will try, however, to lay before you as briefly as possible a few of the methods of diagnosis and treatment of fractures of the long bones, which have gradually taken present form in my hands during many years of extensive practice in this class of injuries as a surgeon to the "Out Door Dept. of Bellevue Hospital" I offer no apology for the crudeness or simplicity of some of the methods and appliances which I present—merely stating that with but a few hours for each clinic, and with thirty or forty patients in the ante-room clamoring for admittance to the surgery—and being but scantily furnished with necessary supplies, I seldom have either time or material for refinements, but must get down to business What to do must be decided promptly Dressings must be applied quickly, and in a sufficiently substantial and economical manner to suit the case in the circumstances Therefore, my constant aim is to simplify my work both as to the time occupied and the expense involved Hippocrates, in his work on fractures, says "There is no necessity for much study to set a broken bone Any ordinary physician can perform it" And my respect for and confidence in the utterance of this "shade of the mighty dead" is exhibited in the fact that, I a very ordinary physician, am very often attempting to do it

He does not mention the necessity for a thorough knowledge of anatomy both general and regional—a good general knowledge of both ancient and contemporaneous mechanico-therapeutics—a good degree of manual dexterity, together with a carefully cultivated discrimination, to enable the doctor to select or invent as the occasion requires—the mechanical means which will secure the greatest advantage to his patient with the minimum of suffering or inconvenience

He may have assumed that the ordinary physician of our day would be possessed of all these advantages and would not require to be reminded of qualifications of such obvious necessity And, Mr. Chairman, I think I may assume that, as I have the honor to address, probably the largest and surely the most distinguished body of surgeons ever assembled on the American continent, it will not be necessary, in my humble contribution to present a ~~fracture~~ at I should enter into and discuss at ~~length~~ of common detail which they ~~will~~ or that

I should elaborate every idea to which I may give utterance, or that I should give attention to special conditions or peculiarities of cases. I will also assume that you will justify me in confining myself entirely to methods of diagnosis, which I have thoroughly tested, and to the exhibition and description of the mechanico-therapeutical appliances, also thoroughly tested in my own experience, which I am about to offer for your inspection and consideration. Without wasting the brief time allotted to me in quoting authorities, or in offering opinions of the methods of other more eminent surgeons whose lives and energies have been devoted to the development and improvement of means for the alleviation of human suffering, whether or not those means shall in all cases meet my approval.

But while I wish to abstain from criticising the methods of other surgeons, I can hardly avoid making a remark in this place in reference to the apparatus which is now so commonly used by the profession for producing extension in the treatment of fractures of the femur, viz., the weight and pulley. It has no doubt been very useful in a great number of cases, and it seems to have received the endorsement of many of the writers of our modern text books. But I do not think that any surgeon can accept it as an instrument in all respects suitable for the purpose.

Of course it will produce extension as we apply it, but it is by the clumsiest means known in mechanics. And if an ordinary workman were to present me with such a device for the accomplishment of any important mechanical end, I should conclude that he was a man of but very limited resources, as there are very many far more elegant, and at the same time equally efficient, means within the range of common mechanical science which can be applied for the purpose. This leads me to the few remarks which I have to make on the

days of Hippocrates, and perhaps chiefly by that gentleman himself, they will require neither apology nor endorsement at my hands. Extension, coaptation and fixation has been the surgeon's motto ever since his day. It is his motto still, and it will continue to be his motto while fracturable bones form the framework of animal structures.

All our inventions and improvements are limited, therefore to mere details of apparatus, and their methods of application for the accomplishment of these necessary steps to the restoration to usefulness of a limb, by the cure of the lesion which we are

Plate III

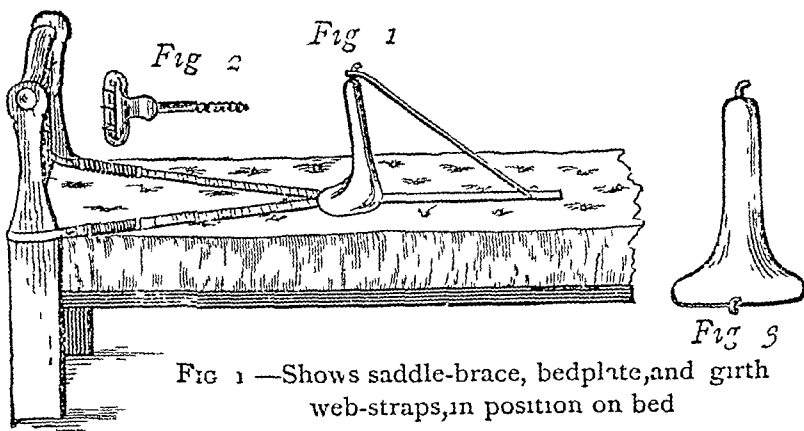


FIG 1 —Shows saddle-brace, bedplate, and girth web-straps, in position on bed

FIG 2 —Screw-buckle

FIG 3 —Saddle

considering. If you will look at plate III of the engravings, with which you are supplied, you will see that it represents a good bed of any ordinary kind. It stands level on the floor, that is to say, the foot posts are not raised upon blocks to produce counter-extension. This being to my mind a most objectionable method for obvious reasons, especially if we have a stout plethoric subject on our hands for treatment. Figure 1. Upon the bed represents a nicely padded saddle, so constructed and arranged that its base projects under the nates of the patient, the wings resting against the well-cushioned *tuberi ischii*, while the upright body rests against the perinæum, fitting the parts nicely.

This saddle is maintained in a vertical position by an iron brace, with an eye at one end, which fits into a hole in one end of a bedplate of hoop iron covered with cloth. On the bottom of the saddle there is also a hook for attachment to the other end of the bedplate. When these parts are in their places, the saddle is in the position shown in the engraving. Attached to the bedplate, right under the base of the upright saddle, there are two pieces of girth-web, the free ends of which are made fast to buckles, which are provided with stems for screwing into the head-board of the bed—one on each side—or the girth-webs may be simply tied to the bed posts.

This saddle when thus placed in the position indicated, with its brace and bedplate in proper relations to it, together with the girth-web straps and screw-

TREATMENT OF FRACTURES OF THE FEMUR, ILLUSTRATED BY PLATES III, IV AND V

I will not trouble you with the methods of making diagnosis in the fractures of this bone, as there are so many situations in which fractures may occur. And these may be also so different in character that it would require too much time. Then, too, the diagnosis in most of them is made sufficiently clear by the deformity, and by the false motion and other symptoms that I will entirely omit what I would like to say on that branch of the subject, and come at once to the treatment, selecting for my present purpose a simple fracture of the middle third of the bone.

I do this the more willingly, as the principles upon which the various fractures of this bone are treated are nearly identical. And as these principles, as far as I know, had their first recognition in the good old

buckles or other means of attachment to the bed-head, is the means by which I make my counter-extension in this fracture

It will be readily seen that the amount of traction which this apparatus will resist is only limited by the strength of the materials employed in making it, and the endurance of the muscles of the patient. It certainly will resist far more extension force than a prudent surgeon would think it necessary to employ for the purpose he has in view. The efforts of the surgeon in the use of extension, being directed merely to restoring the limb to its normal length, by overcoming unnatural muscular contraction, and not to stretching the limb beyond that point, as he is well aware of the danger attending such procedure.

When it is necessary to remove the saddle temporarily the brace is lifted, and the saddle falls and the bedplate can be pulled to one side. It is readjusted with equal facility. With this apparatus we have a fixed point to resist the extension force. The patient lies comfortably on a level bed, and if he desires it, his head and shoulders may even be elevated a few inches without retarding the progress of, or in any other way interfering with the reparative process going on in the bone.

Of the saddle, the parts subjected to its contact become quite tolerant in a very short time. An occasional sponging with alcohol and water, or the placing of a cool fresh towel, however, will be found comforting and grateful. I may mention here that this method of counter-extension is equally

useful in intracapsular fracture, also in diseases of the hip or knee-joint, or wherever counter-extension of the limb is indicated. Combined with this apparatus there are many methods for producing extension. Elastic bands of rubber and other forms of rubber can be made to suit nicely, especially where children are the patients. Modes of application will suggest themselves to any surgeon.

I have also used coiled springs attached to my webbing straps, under the pillow at the bed-head, while the foot of the patient is attached to a hook in the foot-board, stretching these springs sufficiently to obtain the desired amount of extension and securing them to the bed-posts by leather straps. I invented, however, some time since a little extension apparatus which suits the purpose better than anything I have yet seen. Plate V, Fig 3 and 4. It consists of a coiled spring enclosed in a metal case. One end of the case slides into the other like a telescope tube. The large end is provided with a flange for fastening to the outside of the foot-board. This end of the case is also fenestrated, so that the action of the spring can be seen from without. On the edge of the fenestra there are figures to indicate pounds, weight, and a projection on the edge of the inner tube serves as a pointer so that the amount of force required to shorten the case by pushing or pulling the inner part into the outer part is registered. Looking at Fig 4 you will see that a stem passes through the case, the inside end of which has a screw-head for attachment to the patient by the adhesive

plaster, Fig 2, the outer end of the stem terminates in a handle. This part of the stem goes into the other part, and is shortened or lengthened at pleasure by turning the handle. By this means the spring is compressed or lengthened so that the exact amount of extension force required in the case can be obtained simply by turning the handle backward, or forward. Plate VI shows the method of extension by weight and pulley combined with my method of counter-extension by the saddle. The apparatus will be easily understood.

I put in Plate VII and V, the patient is represented as lying on the bed with the dressing completed. Fig 1 in each plate represents a compound splint. This splint is made of what is called "Hobby" felt after the invention of the name of various thicknesses and is a very good article for the purpose, as it can be nicely molded to the limb. I used the felt of the splint nicely padded. The splint is seen in the cut.

To keep the splint in place, I used two rubber bands, each of

Plate V.

Fig. 1

Fig. 5.

Fig 2.

Fig. 4

FIG 1—Compound splint.

FIG 2—Saddle and strap.

FIG 3—Extension apparatus.

FIG 4—Extension apparatus.

FRACTURE OF THE LONG BONES

Plate IV

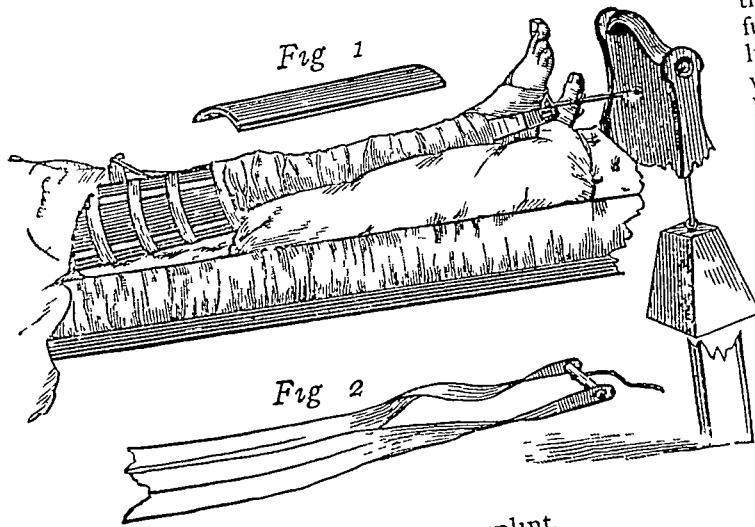
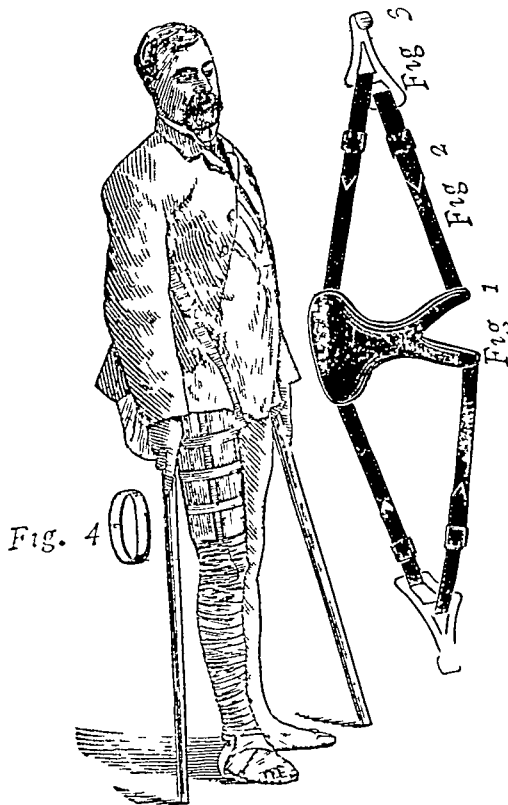


FIG 1—Coaptation splint.

FIG 2—Adhesive side plaster.

elastic similar to but stronger than that used in making gentlemen's suspenders. Plate VI, Fig 4. These, in the first place, keep the splints firmly applied, and also, they being adjusted so that they retain a small amount of unexpended contractility, keep up equable pressure during the progress of the atrophy of the soft tissues. I am not

Plate VI



insensible to the possibility of mischief following the use of such elastic pressure, if placed carelessly or too tightly upon the limb. I think, however, that no careful surgeon would need to be warned that ligating the limb by any means whatever would be dangerous practice. I will say here, that my own views on the subject of coaptation splints in this or any other fracture of the long bones are very simple. The true splint for a broken bone is the periosteum and the surrounding soft tissues. And if the surgeon keeps in view the fact that the result of his extension and counter-extension, if wisely and effectively applied, is to restore these tissues to their original relations, re-establishing the normal form of the canal in which the bone lies, and that when this has been effected by the application of sufficient force for the purpose, the bone itself will offer no resistance to perfect reposition. And I also assert, that if he does not succeed in re-establishing the

original form of this canal, the use of any splints of whatever kind, secured by whatever means, whether elastic or non-elastic, are contra-indicated in the case. I never depend upon the pressure of a splint to do the work which I should do myself, although I recognize their usefulness in reinforcing by gentle and equable pressure the coaptating function of the soft tissues. Perfect coaptation, I am aware, is not in every case obtainable, by whatever means he may employ, but in cases where perfect reduction cannot be effected, extreme care and excellent judgment on the part of the surgeon in the use of splints is indispensable.

In preparing a fractured femur for extension, I am careful to carry my adhesive side plasters, Fig 2, up to the seat of the injury, so that no undue traction may be brought to bear upon the knee joint. Many surgeons terminate these strips below the knee. I prefer the other method. It is an interesting fact, gentlemen, that Hippocrates, nearly five centuries before the Christian era, recommended extension for the rectification of all deformities produced by fracture and dislocation of this bone. He advises "extension in as straight a manner as possible, so that the fragments may unite properly." He also says that "it is a great disgrace to the physician to exhibit a shortened thigh."

It is probably right, then, that we should give him the credit for the introduction of this valuable principle. And as he does not say much about his methods of application, we are by no means certain that he did not use Desault's, Liston's, Buck's, and all the other plans with which you are familiar, including even those offered by your humble servant on this occasion, never dreaming that these great surgeons would re-invent them and get the credit for them all down through future ages. I should mention that I never use a long-side splint. Sometimes, however, a board like a long splint may be fastened to the body and limb to restrain movements. This

can also be effected by a piece of muslin a foot wide, one end being pushed under the hips of the patient from the injured side, and the other over his body—both ends being fastened to the opposite bed-rail. This is more easily worn by the patient, and also answers the purpose of preventing all tendency to yield to the extending force. When the patient has recovered sufficiently to leave his bed, crutches are found to be necessary to enable him to move about for exercise and for other purposes, and if you look at Plate VI you will see a good representation of a saddle-crutch which I invented some time since, and which has given a number of my patients a great deal of comfort and myself much satisfaction. The saddle and suspenders are worn inside of the clothing, the hooks alone coming out two inches below the axillæ. Ordinary sticks of proper length suit quite well for crutches if the top end is chiseled to fit the hooks of the suspenders, as they do not touch the axilla when the patient is suspended upon them. Thus the body can be maintained in a natural posture both while standing on the feet, while sitting on a chair, and while swinging in the act of stepping. I will mention two cases.

Mrs G, a lady of two hundred and ten pounds weight, came under my care last winter with fractured fibula. When the proper time had arrived I ordered crutches, as usual. Their use was attended with so much suffering, she being afflicted with prolapsus uteri, that she was indisposed to take necessary exercise.

I then had a saddle prepared for her, and nicely padded to fit. This she used during the period of convalescence without discomfort walking three or four hours every day. After she gave up using it, it was re-covered with soft leather and sent to me. It had proved such a pleasant support for her that when her limb was quite restored to usefulness she abandoned the use of the saddle with regret. I pass it round that you may see how it is padded to suit the circumstances.

Mr B, a gentleman of two hundred and thirty pounds weight, with a similar injury. On the ninth day he procured a pair of crutches, but he got along rather poorly with them. I lent him a saddle, and from that time until he got quite well he used it constantly. It is not necessary for me to explain the advantages of carrying the weight of the body upon well-cushioned pelvic bones fitted by nature for the purpose. Neither do I feel called upon to point out the inconvenience and suffering imposed upon a patient when the doctor orders him to take exercise with ordinary crutches, with the weight of his body suspended upon cross-heads in the axillæ, where he is also in constant danger of injury to the vessels and nerves contained within their boundaries. These are obvious to you all without further mention. The saddle is of simple construction, and can be made very cheaply. I use a bit of steel plate cut to shape and bended into the general form of a saddle. A few holes are drilled in it to fasten the padding and a little rivet on each corner, with a protruding head like a button, to fasten the suspenders to. The straps and hooks can be made of any material that is

strong enough to carry the body and to suit the pocket or taste of the wearer. I use the boot strap webbing one inch wide, with button hole on one end and a buckle near the other end, so that they may be shortened or lengthened at pleasure. Leather straps answer the purpose. The hooks can be made of thick wire bended to suit. I use thin steel plate cut to shape and bended as required.

FRACTURE OF RIBS

The diagnosis, where one or more ribs are broken, I do not often find very difficult to make. The objective symptoms, as the patient stands before me, being quite sufficient, in a large majority of cases, to lead to a correct conclusion. He exhibits more or less pleurosthotonos, with restrained movement on the injured side. Then there is more or less embarrassment of respiration. Often there is a tendency to slight but frequently recurring cough. And while he tries to suppress every movement, he finds this impossible. And it is evident that every unusually violent expiratory effort is attended by very acute suffering. This, we may conclude, is probably a case of fractured ribs, although it is still possible that a severe contusion might be accompanied by all these symptoms. His clothing is now gently removed. Inspection may or may not reveal any marked depression or bulging of any part of the thorax. The story of the injury is told. The part which received the full force of the blow is pointed out, and I now know pretty well what may have occurred to the ribs and also to the adjacent structures. But I desire to know what really has happened, and if fractures are present with resulting injury to the lung, pleura and other tissues and



Plate XI

splints to follow the atrophy of the soft tissues I very seldom require to readjust them otherwise

FRACTURED CLAVICLE

Plate XIII

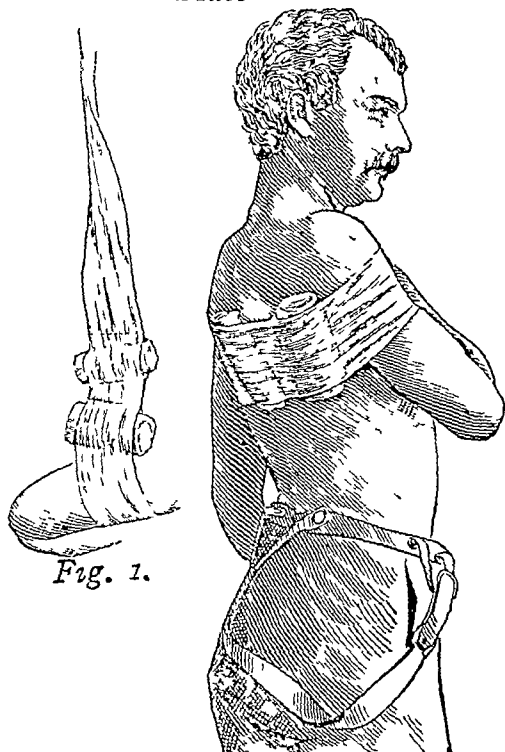


Plate XIV



The diagnosis in this fracture is very simple. I think it unnecessary to say a word about it. When the clothing is removed we see that the arm droops downward and forward, and often the distal end of the sternal fragment is felt by the finger sharply defined under the soft tissues—often both fragments may be felt and crepitus may be easily produced by those who like such music. I do not and I never try to produce it until I have exhausted all other means of investigation. Now let us dress the case.

I recognized early in my practice the necessity of making the scapula as nearly as possible a fixture while treating a fractured clavicle, as the weight of the arm drags the acromial end downwards and the attached fragment of the clavicle goes with it, so that it requires some means of not only restoring the normal relations of the parts, but it is necessary to hold them in place during the entire period required for the reparative processes. And I think, gentlemen, that want of attention to this point will account for a very large proportion of the failures to cure this injury without deformity. I use an adhesive bandage, say four inches wide. One end of this is reflected upon itself, forming a long loop, Fig. 1. This bandage is long enough to encircle the body. I place a large roller-bandage in the loop, leaving room for the arm, and secure with pins. When ready to dress the case I slip the loop over the hand and up over the insertion of the deltoid muscle, and well up in the axilla, the roller being far enough from the arm to admit the fingers. It may even be placed against the outer border of the scapula, although that is not necessary, as there is not much tendency to displacement of this bone forwards. I now place a smaller roller, say one inch in diameter, in the loop opposite the inner border of the scapula, and corresponding to it in angle, and fasten it there, so that when the outer part of the adhesive bandage is brought to bear firmly upon and around the thorax, mischievous movements on the part of the bone are impossible. Before applying that part of the dressing permanently I raise the injured shoulder, keeping the elbow upon the lateral median line of the thorax, and secure this position by the adhesive bandage. I then take a strip of adhesive plaster, four inches wide, and long enough to reach. I cut a slit in it, placing a few folds of lint over the slit. That I place under the olecranon process, then carry the plaster up on the arm and hand. Now I bring the arm forward in front of the body with some force as a lever. The loop bandage being the fulcrum, and thus the acromial fragment is forced outwards, and generally the bone will of itself resume its normal form and relations under this maneuver. My plaster is now carried over the shoulder of the sound side and the hand is thus secured firmly. The other end of this bandage is now carried up the dorsum of the arm and adheres to the opposite shoulder. Now the dressing is complete, although for the additional comfort of my patient, I usually cover this dressing with a nice roller bandage, applied over all. The advantages which I claim for this method are, first, I do not ligate the arm, as there is plenty of room left between the roller and the arm to prevent unpleasant embar-

rassment of the circulation, and, second, I secure immobility of the scapula, or nearly so, adding much to the chances of cure without deformity

My dressing of this fracture looks not unlike that used by many other surgeons. But its true inwardness and essential differences are easily found on inspection. I have treated a very large number of cases of fractured clavicle by this method, and my results will compare favorably with those of any other surgeon within my knowledge. Other fractures I must leave for future opportunity

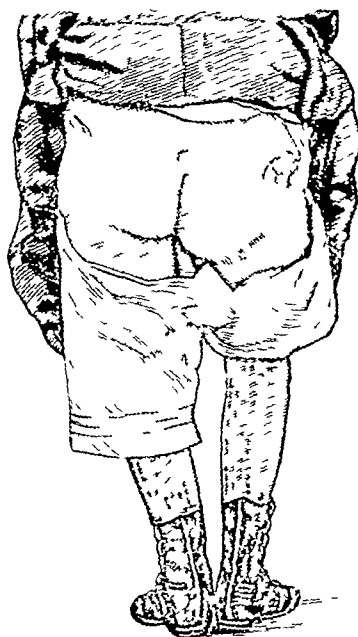
EXSECTION OF BOTH HIP JOINTS FOR MORBUS COXARIUS

BY WILLIAM A. BYRD, M.D., OF QUINCY, ILLINOIS

[Read before the Surgical Section of the Am. Med. Association June 1883.]

Ever since the first suggestion of the removal of the head of the femur by Mr Charles White, in 1769, for morbus coxarius, and the execution of it first by Schmalz, in 1816, as stated by Dr Sayre, Anthony White, in 1822, as claimed by Barwell, there has been great diversity of opinion among surgeons in regard to the propriety of this operation, a few favoring, and many, condemning it as being entirely useless, claiming that even when it succeeded in saving the life of the patient, it left a miserably deformed being unable to walk without the aid of crutch or cane, and the chances of cure were no greater than if the patient was allowed to depend upon the slow process of spontaneous exfoliation of the diseased bone, a process which was rarely accomplished before the death of the patient. Opinions have greatly changed since the excisions have become numerous enough to compare with the older method. A condition brought about by various operators, and given a great impetus by Dr L. A. Sayre, who claims the recovery of sixty three out of seventy-two excisions of the joint. The gravity of a single excision having been considered so great, I presume but few surgeons thought there would be any propriety whatever in double excisions, though, of course, subjects requiring double excision present but seldom. I have found a record of but two cases of the kind, which you may find in the last edition of Dr John Ashhurst, Jr's "Surgery," p 633. He writes "I once had occasion to resort to excision of both hip-joints, the result (fig 316) as regards life, was satisfactory, but the patient was not able to walk without crutches as long as he remained under my observation. A similar operation has since been performed by Mr Croft." Now the case I have the honor to report to you is not only able to walk without crutches, but she goes up and down stairs very well without them, and attends school every day. When passing over rough ground she makes use of the crutches, traversing smooth places, without them. The accompanying photograph shows the appearance of the parts after the excision.

I will now read you a carefully written account of her condition previous to the excision, by Dr Moses F. Bassett, a gentleman highly respected in our city



"Susie Mahaffey, the subject of the following sketch, was born in Quincy, Ills., August 1st, 1873, of Irish parentage on both sides. At the time of her birth her father was aged sixty five years and her mother thirty-one. The child has light complexion, pale blue eyes, flaxen hair and is of fleshy texture, is of a bright, cheerful disposition, very fond of music and precocious, both physically and intellectually. She first came under my observation in February, 1876. She then had masses of enlarged lymphatic glands in the cervical and submaxillary regions, and the parotid gland of left side was suppurating profusely. She had been in this, or a similar condition several months, and was markedly anemic and suffering with hectic. Several irregular, and lately one regular physician had treated her with no apparent benefit. The last one had told her parents she had "King's evil," and was incurable. After a careful examination of the case and by urgent solicitation I undertook her treatment. I enjoined cleanliness, nutritious and abundant diet, exercise in the open air, by being drawn in a baby wagon, and gave alteratives and tonics, both mineral and vegetable, including potass. iodide sulph. quinquassaparilla, stillingia, iron, etc., also cod-liver oil, topically used salicylic, carbolic and benzoic acids, zinc and iodoform and had the satisfaction of discharging her in about six months, with the abscesses healed, the enlarged and indurated glands reduced to normal size, nutrition good, getting quite fleshy, and with rosy cheeks.

From the autumn of 1876 I saw her occasionally, always looking bright and healthy and was told by her family that she was perfectly well. More than five years afterward, on the night of March 15th, 1881, I was urgently summoned to see her and was told she had been sick in bed with a continued fever for six weeks, under the care of one of her former physicians, that she was now in a dying condition, and the doctor in attendance to treat her

longer, and said she could not recover. Found her temperature very high, with alternate rigor and sweats, and complaining of intense pain in right hip and leg. On inspection, a large quantity of pus was discovered surrounding the femur from hip to knee. This I at once evacuated, by a free incision on the outer aspect of the limb. The exhaustion following this procedure was extreme, but she finally rallied under stimulation, and slowly improved. My efforts were chiefly directed towards recuperating her sufficiently to enable her to endure the necessary operation for the removal of the necrosed bone, but not till April 27th, 1881, did I dare submit her to that ordeal. On that day my friend, Dr W A Byrd, made his first operation, supplemented by a second in the following October, the particulars of which he will detail, and I leave the further history of the case to him, with the concluding remark that in more than forty years of active medical and surgical practice I have never seen results more happy and unexpected.

M F BASSETT, M D "

April 27th, 1881, with the assistance of Drs Bassett and G W Connell, now of Johnson, Nebraska, I proceeded to remove the head and upper part of the right femur. I commenced the incision two inches above the great trochanter and continued it downwards, curving it so as to pass behind the great trochanter, ending five inches below its origin. The soft parts were pulled aside and detached carefully with the periosteum, from the bone with a dental scraper—an instrument that I have of late used entirely for that purpose, an operation easily effected. The head of the bone was thrown out through the opening, and on account of the softened condition of the bone it was divided just below the trochanter major with pliers. There being an abscess over the greater trochanter of the left limb, it was freely laid open and the trochanter removed with the pliers, there appearing to be no other portion of the bone diseased. Both wounds were dressed with balsam Peru and oakum, and the child placed in one of Dr W P Verity's (of Chicago) splint—a splint that I have used with excellent results in similar cases, in fact all the cases I operated upon or assisted to operate upon before using that splint died, and none have died since, but I expect one to do so that I removed the hip-joint for in the fall of 1881. She persisted in being placed face downwards in the splint, which was no disadvantage, as it tended to keep the limbs straighter. Under Dr Bassett's immediate attention, seeing her myself occasionally, the right limb progressed favorably but the left one did not do so well.

October 10, 1881, a little over five months after the first operation, with the assistance of Drs Bassett, Connell, and two other physicians whose names I have forgotten, I cut down on the head of the left femur as in the former operation, and removed the bone just below the trochanter minor with the pliers, and dressed the wound as before. Constitutional treatment was carefully attended to, and she received excellent nursing. From this time, her recovery was very rapid, she gained flesh, and the wound healed readily.

Now I wish to call your attention to the time supervening between the attacks and the excision of the first joint. Dr Bassett says that he was first called to see her, for her hip trouble, March 15th, 1881, six weeks after pain had commenced. Suppuration had already freely occurred. He released the pus, and the disease progressing, I removed the bone April 27th following, a period of about eleven weeks. The other bone was left with only the greater trochanter clipped off until October 10th, a little over five months. Although she has done so well I believe she would have done better had it been removed at the same time. Most authors deprecate the use of the pliers in removing the bone in such cases, in which view I believe they are generally correct, but in this case the bone was so soft that I did not anticipate splintering.

Again I desire to call your attention to a splint that I have found so useful, first brought to my notice by Dr Chas T Parkes, of Chicago, but the inventor is here and I shall ask him to show it with its application to you. Before using it, I was interested in three cases, all dying, since, in four, of which three have recovered. Many of these cases I believe originate in a tubercular condition of the bone, as so ably described by my friend Dr N Senn, in his report on pathology to the Wisconsin State Society, in 1883. These cases, when the disease is only in the bone and there is synovial effusion from irritation, are those, I think, cured by Mr Macnamara, of Westminster Hospital, London, by boring with a drill a hole directly into the joint from the outer side of the trochanter major, thus permitting exit to the morbid material in the bone and relieving tension within the joint.

JUNE 7TH, 1883

AN APPLIANCE ADAPTED TO OCCASIONAL GYNÆCIC AND OBSTETRIC EMERGENCIES

BY HENRY A MARTIN, M D, OF MASSACHUSETTS

[Read to the Section on Obstetrics and Diseases of Women June 1883.]

I have always thought that his gift, thrown into the treasury of the Temple of Medicine, ought not to be despised, who brought some newer and really better way than had been before devised for the relief, assuagement, or sometimes, happily, complete removal and cure of any, even the simplest, rarest, least important of the multifarious, the myriad developments and complications of disease which sow the way of our life with pitfalls innumerable, with pain and anguish and death.

I bring you a very simple matter, one not worth calling an invention. A very broad (9 inches) thin bandage of what is technically known as "pure rubber," a preparation of the very finest grade of extra Para India-rubber and the extreme minimum of pure sublimated sulphur necessary, with heat, to accomplishing the process of "curing" or "vulcanization." This bandage has been found, by others as well as myself, of great and unexpected value, now and then.

About four years since, I was asked by my friend and old fellow-student, Dr J S Flint, to visit a patient of his. In all respects but one she was healthy and able, but that kept her anchored in her bed

Several fibroid tumors were attached to the body and fundus uteri. As a consequence, whenever the patient assumed the erect position, the fundus uteri, enlarged not only by the fibroids attached to it, but by its own hypertrophy, was thrown against the extremely sensitive anterior peritonæal wall of the abdomen, producing at one point, where the tumor was most prominent, extreme, indeed quite intolerable, pain. On the "broad of her back" she was comfortable, and in no other position. All the usual varieties of abdominal bandage, supporter, swathe, etc. etc., had been tried, but found useless, increasing rather than diminishing the trouble. It occurred to me that a simple thin band of pure rubber, wide enough to cover the entire abdominal surface, and applied closely and *immediately* to the skin, without any intervening application whatever, might be borne and afford relief. I procured such a bandage. The result far more than justified my hopes. From its first application the pure rubber bandage made the patient quite comfortable, even while in the standing position. In a few days she resumed her profession of seamstress. A favorite in many good families, for fifteen months she continued to earn her living, and, to a very considerable degree, to enjoy the life she earned. At the end of that time, the tumors had so increased in size, and this increase was so complicated by hæmorrhage and other familiar symptoms, as to necessitate repose for the two or three remaining months of her existence.

During the past four years several of my friends, as well as myself, have repeatedly employed this thin wide bandage of pure rubber, and, in almost all cases in which it was judged that it might be useful, it has proved to be so, often extremely useful. I need hardly enumerate the cases in which it has proved, and may be reasonably expected to prove, more useful than any other appliance. Its perfect closeness of application to the skin, by which it becomes practically, as it were, a part of the anterior abdominal parietes, and its perfect elasticity, render it a means of great relief and comfort, not only when the gravid, subinvolved or otherwise enlarged, uterus is thrown forward against the peritonæal wall, when tumors have the same effect, in some cases, particularly in multipara, in which the redundant and forward projecting abdomen is not only a source of chagrin but of suffering, the pure rubber abdominal bandage has been found most useful, but also in some cases in which the uterus, though not enlarged but anteselected or anteverted, has been the source of infinite annoyance, this bandage has effected relief when all previous appliances had been of little or no utility. It is not only, however, in cases in which abdominal tumors or uterine displacements are the sources of pain and uncomfortable symptoms, but in many cases in which the abdomen was sensitive on pressure, some in which peritonitis was, doubtless incorrectly, suspected, and after labor, the bandage has been found not only a source of relief but even, it has been thought, an important means of protection from danger, in the peculiar form of pressure exercised on a uterus prone to relaxation and dangerous hæmorrhage, or threatened, with its appendages, by

inflammatory trouble. It is not only by its close application and wonderful, quite unequalled, resilient elasticity, but also by the perfect retention within it of the natural heat and of the increased fluid secretions of the skin, rendering it, after half an hour's application, a perfect poultice, stupe or fomentation, not one efficient to a certain degree, but heavy, filthy, offensive, incapable of being applied to all parts of the joint and sides of the abdomen, and probably pouring forth a perfect flood and tempest of those fearful germs which haunt the night-mires of so many of our brethren, but a poultice or fomentation affording support and comfort and protection from danger by its perfect elastic resilience and pressure of a sort which relieves, while every other pressure is utterly unbearable and out of the question. This bandage is admirably adapted to certain of those cases so fertile of misery to the patient during pregnancy, of protracted dragging tedious delay, and misery to both patient and attendant, when labor comes on, and, indeed, then not entirely free from danger to the former. The cases I mean in which the gravid uterus is strongly, and, as pregnancy advances, more and more anteverted and more and more a source of fatigue and wretchedness.

I have occasionally inserted a soft pad of old worn towel or worn flannels, of folded old linen or lint between the bandage and the skin at the point at which it seemed desirable to increase backward pressure, but lately I have found this to be quite needless, and, in some cases, the local pressure adds to the patient's discomfort. The peculiar active living pursuing pressure of a pure rubber bandage, properly applied, dispenses with what I at first thought to be advisable.

Another obstetric and gynæcic use of this broad elastic bandage is in the treatment of adenoid tumors, and of the early stage, at any rate, of inflammatory tumors of the female breast—an application of the principle of immediate elastic pressure which the profession owes to a very distinguished associate of ours (Dr Bontacou of Troy N Y). Having long relinquished all but consulting midwifery practice, I have had but little experience in this employment of the pure rubber bandage, but still quite enough to convince me of its value, and I have found the very broad bandage incomparably more efficient for this purpose than those of ordinary width. As my hearers, though gynecologists for the nonce, *aita*, *Laus Deo*, mostly general practitioners also, I may venture to merely mention here the great use and convenience of this bandage in certain thoracic cases. As a substitute for the "jacket poultice" in pneumonia, pleuritis, contusions, etc. As a substitute for the ordinary roller bandage, and infinitely preferable to it, in fracture of ribs, in pleuritic effusion, both before and after thoracentesis, it is also a very convenient thing during and after the operation of paracentesis abdominis. During the operation it may be pretty snugly applied above the place of puncture, or, with a good deal of pressure, around the abdomen before the operation, the puncture to be made through the bandage. In the cases of extreme umbilical hernia it is useful. In these last cases the

thickness than for many other cases. For most cases a length of 5 feet and a thickness of 28 (Stub's wire gauge), but for bad cases of ventral hernia a thickness of 22, or even 20 of the same standard is advised, and a length of 6, or even 7 feet.

All the applications I have mentioned have been repeatedly made, and found useful in actual practice. Others have been suggested to my mind, such as, in certain cases, after the removal of large abdominal tumors, etc., etc., but my object is to give you the actual results of my experience—not mere suggestions and surmises.

The principle on which the bandage is used is so simple—the indications for its use so plain and evident after the principle, and the perfection with which the bandage meets the requirements are understood—that I need say no more on that point, but as all are far wiser than any one can be, I do not doubt that you will discover all the uses of such a bandage that might suggest themselves to myself and many more besides.

Let it be distinctly understood that I recommend this abdominal bandage of pure rubber as an appliance to certain peculiar emergencies, but by no means for general use, for many, indeed for most cases, one of the usual forms of abdominal belt, or supporter, is undoubtedly preferable. The very quality of any close application to the skin, exclusive of air and inclusive of animal heat, and of the increased fluid secretions of the sudoriparous and sebaceous glands, which render the pure rubber bandage of great and peculiar value in certain cases, would render it very objectionable to a far greater number of cases in which pain and threatenings of inflammation are not present.

Nothing can well be simpler than the construction of this appliance. A bandage merely, just like those I recommend for the limbs except in being much broader, with three sets of tapes instead of only one, and in having a very slender strip of whalebone inserted in the tapes, and to prevent the wrinkling up of the bandage from motion of the body. Even with this provision, it is liable to roll up on the sides. This tendency might be obviated by inserting several slender strips of whalebone at intervals in the length of the bandage, but this would deprive it of the very important quality of perfect and equally diffused resilient elasticity, and for other reasons would defeat the peculiar end of the bandage. I provide a patient with four of the little contrivances devised for attachment to skirt supporters and certain sorts of garters, etc.—an excellent and almost costless substitute, by the way, for the same price. One of these catches is to be sewed to each of the ends of two tapes, or soft silk or cotton cords of proper length, by passing these between the thighs and attaching the catches to the bandage after it is applied, its rolling up may be prevented.

If these bandages come to be an article of commerce, such tapes, or cords and catches, would of course be supplied with them.

It may be worth saying, before concluding, that the present form of band was, on the whole, found to be the best. I devised and tested several other contri-

vances, all more elaborate than this. I need not trouble you with anything about them, as all were found to be open to objections from which this is free. At first I made them thicker than I now prefer. Now and then, however, in cases of bad ventral hernia, unusually pendulous abdomen, certain peculiarly projecting tumors, etc., etc., a bandage of the thickest sort (No. 20 Stub's gauge) and of the greatest length ($7\frac{1}{2}$ feet) that I ever use is to be preferred to the bandage of No. 28 Stub's gauge, and $4\frac{1}{2}$ to 5 feet, which I much prefer in a very large majority of cases.

NOTE.—After the meeting of this Association at Chicago in 1877, on which occasion I first publicly announced some of the results of nearly twenty five years' experience and study of the method of immediate elastic compression by means of the pure rubber, or, as it is since very generally called both in Europe and this country, "*Martin Bandage*" (an article now manufactured by scores of manufacturers, and sold by tens, probably hundreds of thousands annually), I received many inquiries for bandages.

I went to two prominent and very well known dealers in Boston, and offered each of them successively, gratis, all that might be gained by their manufacture and sale. When told that as small a stock as the manufacturer would take in hand would cost about \$200, both declined, one candidly saying he "saw no money in the thing," the other, more politely, but more circuitously and tediously, said the same thing.

I had to engage in the manufacture myself or disappoint my correspondents. Since that time I continue it, mainly for this very important reason, that the manufacturers, although they reap enormous profits from my suggestion and invention gratis, for the most part make the bandages so vilely, of such poor and perishable and irritating material, as to do my personal reputation and the reputation of this method of treatment the greatest possible injury. Every counterfeit is called a "*Martin bandage*," and I am held to responsibility for its abominable, rascally, fraudulent worthlessness.

I shall certainly not again ask any dealer to do me the great favor of enriching himself by making anything of my suggestion. If, however, any of my hearers or readers should wish to try the broad bandage of pure rubber before it becomes a general article of commerce, and will write to me, I will gladly supply them with bandages of any length from $4\frac{1}{2}$ feet to $7\frac{1}{2}$ feet, of either of the four grades of thickness 20, 22, 24, 28 of Stub's wire gauge, and at a price, according to weight and degree of thickness, of from \$2 to \$3.50, and will exchange till the correspondent obtains just what he needs.

OWING to the removal of Dr. Theophilus Parvin from Indianapolis to Philadelphia, he has laid down his editorial pen. The readers of the *American Practitioner*, with which he has been so long connected, will miss his name and hand in the journal. Dr. Ochterlony, of Louisville, succeeds to Dr. Parvin's editorial duties, as well as to his former position in the University of Louisville.

WHAT MEANS CAN BE JUDICIOUSLY USED TO SHORTEN THE TERM AND LESSEN THE PAINS OF LABOR

BY JNO MORRIS, M D , BALTIMORE, MD

[Read in the Section of Obstetrics and Diseases of Women June 1883.]

During the discussion of this paper Dr H C Ghent, of Texas, said "I have listened with much interest to the reading of this paper. It relates to one of the most interesting and important subjects that can possibly engage the time and attention of the obstetrician. I have been astonished and disappointed. The question asked by the author is a double one, viz 1st, shorten the term, 2nd, lessen the pains of labor. Astonished that chloroform was not even named as an anæsthetic agent. During the first years of my practice I refrained from the use of chloroform or any other anæsthetic in obstetric practice, being prejudiced against it by the teachings of the immortal Chas D Meigs, but for the past fifteen years I have been in the constant habit of exhibiting chloroform for the purpose of obtunding or abrogating the painful sensations of parturition, and, I am pleased to say, with the most gratifying results. I use it *intermittently*, during the *second stage*. Never carry the effects to the full loss of consciousness, unless I fear laceration of perinæum or other soft structures, in which event I do not hesitate to give it to a surgical degree. Exceptionally, I give it during the first stage, when the woman suffers much and the os dilates very slowly. Have never had a case of post-partum hæmorrhage since I began the use of chloroform. If I apprehend the least danger from this source, I always give ergot *about* the termination of the second or the beginning of the third stage. With one hand upon the hypogastric region, to *grasp* the womb and the other *within* the organ, to excite *tonic* contractions, I do not think there can be much danger from post-partum hæmorrhage.

No serious laceration of perinæum has occurred since I began the use of chloroform in this branch of practice. I know, however, that lacerations do occur in the hands of the best, the wisest and the most enlightened obstetricians, still, I am of the opinion they would much less frequently occur if chloroform was used efficiently and judiciously.

Ergot is a power for good or evil, depending upon the state and stage of the labor. I never give it during the second stage, but confine its use to the third. As before remarked, I have given it just before the completion of the second stage, when I apprehended hæmorrhage, but never soon enough for the ergot to exercise any deleterious influence on the child. Wisely used, there are few medicinal agents within the wide scope of the *Materia Medica* that surpass chloroform and ergot.

REPORT OF TWO CASES OF CATHETERS, BROKEN OFF IN THE PROSTATIC PORTION OF THE URETHRA, REMOVED BY THE USE OF A NEW INSTRUMENT

BY ABNER HARD, M D , AURORA, ILL

In the winter or spring of 1881 a Norwegian between 60 and 70 years of age, who had been in the

habit of using a catheter in consequence of enlarged prostate gland, was brought to my office, having broken the catheter in the prostatic portion of the urethra. I could not feel the catheter by external manipulation, but by passing a sound into the urethra I discovered the end of the broken catheter in the position indicated. The catheter was what is known as a gum, or soft catheter, No 7. Not having seen or known of such an occurrence, I confess I was at a loss as to what course to pursue. There was danger of pushing the fragment into the bladder, and I possessed no instrument constructed to meet such an emergency. It is said "necessity is the mother of invention," and calling upon my inventive powers, I took a large, straight steel wire and had a tapering screw cut on one end. Then took a common gum elastic catheter, and after cutting off the end containing the eye, used it as a sheath for my wire screw. This I oiled and passed into the urethra until it came in contact with the fragment of the catheter. Then carefully turning the wire, with gentle pressure, attempted to screw it into the open end of the broken catheter. My rude instrument was too blunt to readily enter, but after repeated attempts it entered sufficiently to admit of making traction. I withdrew the catheter about an inch, when it broke, allowing me to remove about an inch of the broken instrument. Again introducing the screw, after another prolonged attempt my efforts were crowned with success by the withdrawal of the remaining portion. The fragments removed were five or six inches long. I was assisted by Dr White, of Steward, Ill, who brought the patient to me.

The second case occurred October 6, 1882. This time I was called, in the night, twenty eight miles from home. The telegram informed me of the nature of the case, and, armed with my screw, I responded. The patient was passed sixty years of age. The accident had occurred under similar circumstances to the former, but the catheter was smaller, being No 5. Assisted by Dr George M Macklin, of Waterman, Ill, I proceeded as in the former case, laboring under the additional difficulty of having a smaller orifice in the fragment to be removed. We finally succeeded, as in the first case. A portion of the catheter broke in the removal, making the operation both difficult and tedious. However, both operations were performed without injury to the patients.

Since having the foregoing experience, I have been impressed with the idea that, as soft catheters have come into such general use, accidents of this kind may become more frequent, and some better means of extraction than we have heretofore possessed is needed. I therefore had F H Sargent & Co., of Chicago, Ill, make me an instrument—an improvement on my wire screw. It is a metal rod, with a tapering screw the screw being sharply pointed with sharp and deep thread, and a silver sheath armed with a plug to fill the distal end, and therefore as easily introduced as an ordinary silver catheter. When introduced the plug is withdrawn, and the screw inserted in its place. The surgeon is to manipulate the instrument so as to keep the end containing the screw

in contact with the open end of the fragment of the catheter to be extracted, changing the direction, if necessary, while an assistant gently turns the screw. When the screw enters sufficiently to admit of traction, the fragment is to be carefully withdrawn with the instrument. Since reporting these cases to our local Society, I have read in the *New York Medical Record* of April 7, 1883, the report of a case by Surgeon J. A. Wyeth to the New York Pathological Society, of an English gum catheter lost in the urethra. In that case Surgeon Wyeth attempted the removal with several different instruments, but it slipped into the bladder. He then removed it by the aid of a lithotrite. He had the advantage of the patient's being nearly paralyzed, so that he suffered little if any pain during the operation.

I respectfully offer the foregoing description, of what I think is a new instrument, to the profession, trusting that it may assist some of our brethren in an emergency, as it did me.

THE USE OF THE TREPHINE IN CHRONIC PLEURITIS.

BY J. M. G. CARTER, A. M., M. D., WAUKEGAN, ILL.

The treatment of chronic pleuritis with suppuration was very unsatisfactory, and the patients generally died with exhaustion which was termed consumption, until modern surgery offered means of relief. For many years after surgeons ventured to perform paracentesis thoracis for the relief of this class of cases, it was considered absolutely necessary that no air be allowed to enter the pleural cavity, and the ingenuity of the profession was taxed to devise instruments which would entirely exclude this agent. And even after bolder operations were undertaken it was deemed inadvisable to allow air to enter the opening. It is now known that the entrance of air into the pleural cavity may be attended by no unpleasant results.

The operation which it is the object of this article to describe, has been slowly developed during the last quarter of a century. All the cases recorded, as far as I am aware, have been traumatic and associated with a fistulous opening, indeed, very few cases have been reported. The present case is in the practice of Dr. O. T. Maxon, of Waukegan, and was not seen by the writer until the day of the operation.

G. S., a street car conductor, æt 25, "took cold" in April, 1882. He had a troublesome cough, but continued at work until June 27. While lifting a car he felt a severe pain in the back, which compelled him to stop work. He lay off two months on account of lame back and during that time was treated for inflammation of the kidney. Having recovered from the lameness in the back he returned to his work and remained at his post until about September 10, notwithstanding his cough gave him considerable annoyance. At that date, in attempting to jump from his own to a passing car, he struck his side (at the seat of the abscess) on a car seat. During all these weeks, however, the pain in the back had not entirely subsided, and he was rather feeble, but had a fair appetite.

The injury compelled him to leave his work again,

and it was two weeks before it was considered well, and he returned to work. In about a month the pain in the back, in the lumbar region, and the cough became more troublesome, and November 3, 1882, he was forced to leave his car. He had already been suffering from night sweats some two weeks. He was unable to do anything, and a part of the time confined to his bed until December 1. On that day he began work again, but after half a day's effort he was compelled to leave his car and went to bed.

He came under the care of Dr. Maxon, December 23, 1883, at which time the patient said he had had a troublesome cough for a month or more with night sweats. Most of the time his appetite had been poor, but at times it was good. He complained of pain in the right pleura. Pulse 120 and temperature 103 (Fah). Prescribed quinine and opiates. The pain and night sweats continued about the same for the next month, the temperature ranging from 100° to 105°. There were sixteen to thirty-two ounces of muco-purulent sputa expectorated in the twenty-four hours. Quinine and iron were freely given, but the patient received little if any benefit from the treatment. Other remedies were used, but the case seemed to be beyond the reach of medicine, and the doctor determined to resort to surgery.

February 11, 1883, an opening was made into the pleural cavity between the fifth and sixth ribs. A large pus sac was entered, which discharged about one pint of foetid pus. The sac was then washed out by the injection of a one per cent solution of carbolic acid. This solution was freely expectorated by the patient. During the next ten days there was little or no cough, the temperature became normal, and the patient reported that he could "eat like a railroad hand." He slept much better. As the wound began to heal, his symptoms grew worse, and it was necessary to dilate the opening. At first this was done by introducing rolls of linen. Cough became worse gradually, and it became evident that this method of procedure was not sufficient to keep up the discharge. The cough, night-sweats, pleural pain and other symptoms were as bad as ever by March 20. As the discharge was practically stopped at this time, the opening was enlarged by incision. The operation was performed with difficulty, from the fact, chiefly, that the sac was not adherent to the thoracic wall. The discharge of pus was considerable, and was kept up with great relief to the cough, until May 1. After that date no flow could be obtained, even by dilatation of the opening, and patient and friends alike feared the further use of the knife. Tonics and anodynes were administered during the following three months, but the patient steadily and gradually failed, growing weaker and more emaciated. During these three months he was not able to lie down, on account of the distressed breathing and harassing cough which the reclining posture caused. He expectorated about 32 ounces of pus in each 24 hours. His appetite was almost entirely destroyed by the nausea which was caused by the offensive odor of the sputa. The patient seemed to be slowly dying, and as a last hope, it was advised that he should be operated upon again,

with the hope that a free opening might be secured for the discharge of the abscess, and to facilitate the necessary local treatment

Accordingly, preparations were made for trephining the thorax, and Aug 8, 1883, was selected as the day for operating. The condition of the patient was such that it was an hour after reaching the house before the operation could be commenced. The pulse was 120, and the temperature a little above normal, the cheeks flushed, the patient weak and much emaciated, and the cough so distressing that it was necessary to give ether to quiet it sufficiently to allow surgical interference. At 11 A M, the patient sitting in a rocking chair, the administration of ether began, but it was 11:15 before he was sufficiently under the influence of the anæsthetic to bear the knife.

With a scalpel, an incision three inches long was made along the superior edge of the sixth rib. The periosteum was removed and the trephine applied. An inch and a half of the bone was cut away, except about one quarter of the rib on its inferior edge, which was left as a support to the chest wall. The scalpel was then used to cut through a layer of earthy deposit $\frac{3}{4}$ of an inch thick, between the wall and the pus sac. This deposit was so hard as to break the edge of the knife, and leave it almost as rough as a saw. When the pus sac was reached, a very offensive discharge began, which flowed more freely after the injection of a one per cent solution of carbolic acid. About two pints of this offensive pus were discharged before the wound was dressed. Carbolic acid water, of the strength of one per cent, was freely injected, one of Dr Edmund Andrews' drainage tubes was inserted, and the patient was given gr $\frac{1}{4}$ of morphine to produce rest. The dressing consisted of a simple bandage, over carbolized cloths. During the dressing, the patient had one spell of coughing, which distressed him very much. The air was drawn through the opening in the side, and when he coughed, the pus was thrown out to the distance of several inches.

After the operation was completed, and the dressing applied, as the patient came out from under the influence of the anæsthetic, it was seen that he was very weak. In a few hours he rallied, however, and during the afternoon walked across the room. After the dressing was applied, he ceased coughing, and has not had a recurrence of it since. He was given tonics and anodynes, the latter of which have been constantly and gradually diminished. His appetite has steadily improved, he has no distressed breathing, and sleeps well in the reclining posture, which he had not done for three months previous to the operation. The discharge still continues, but is not so offensive, and is less in quantity. The pulse and temperature are about normal.

The operation occupied an hour and it will be observed that no special antiseptic precautions were taken, further than carbolizing the instruments and sponges. The offensiveness of the pus can scarcely be imagined. The odor was such as to nauseate the attendants, and almost drive them from the room, and it so permeated the air that the smell was strongly perceptible in the yard.

It is evident from this, and similar operations by other surgeons, that the introduction of air into the thorax through an opening in the parietes is not greatly to be feared under these circumstances.

P S Aug 23.—The patient rode out in his buggy yesterday, and to day came to the office, a distance of four miles, and walked upstairs (25 steps) with very little fatigue. He took dinner with Dr Manson, and ate very heartily. His pulse and temperature are normal.

It is now just two weeks since the operation. He does not cough, and has had no return of the hemorrhage from the lungs which was so profuse the day before the operation was performed (expectorated $\frac{1}{2}$ to one pint of blood). The cavity, which held a quart of water two weeks ago, now will admit only eight ounces. The drainage tube was removed and shortened two inches, the result of which was the relief of a sensation of pressure and slight pain under the right shoulder. The sensation of lack of air in the right lung—the affected side—has disappeared, and he breathes naturally. He walks about the yard and premises, and rides whenever he desires. His appearance is very much improved, and all the indications are that the cure is radical.

MEDICAL PROGRESS

STEWED FRUIT FOR THE GOUTY AND THE DYSPEPTIC.—Dr J Milner Fothergill, in the *Lancet* for July 7, recognizes that for many persons, gouty, dyspeptic, and glycosuric, ordinary stewed fruit is objectionable from the amount of added sugar it contains. But it is by no means necessary to render stewed fruit objectionable by adding much sugar to it. Deprived of this excess of added sugar, stewed fruit can not only be rendered unobjectionable, but be converted into an actual prophylactic measure, especially in cases of lithiasis. In order to attain this end all that need be done is to neutralize the excessive acidity by an alkali, and then little or no sugar is required. Dr Fothergill experimented in this way, through his cook, on all the ordinary native fruits, and found that for each pound of fruit a much bicarbonate of potash as would lie upon a shilling (quarter) was all that was necessary. With all fairly ripe fruit this was just sufficient to neutralize the acidity and bring out the natural sweetness, indeed the resultant product was quite sweet enough for most adult palates. Such stewed fruit could be eaten alone, or with milk puddings, or with cream, or the Swiss milk in bottles. Gooseberries, currants of all kinds, apples, and plums, all alike were excellent when so prepared. With dark fruits, however, as the black plum, the color is impaired by the alkali, a little cochineal will remedy this. Where there is no natural sweetness to neutralize the acid completely by, an alkali leaves nothing, simply a cold mass, to which the palate is absolutely indifferent. Such is the case with rhubarb. Here it is well to use half or all the amount of alkali with some sugar. The same is the case with early gooseberries before they have any natural sweetness. Here the full quantity of

alkali should be used, and the remaining acidity met by sugar. Where three-quarters of a pound of sugar is required to sweeten one pound of fruit, only one-quarter of a pound of sugar is necessary after the alkali has been added. The sour-sweet taste is thus secured, which is toothsome. Fruits *en nature* as the strawberry for instance—are good in gout from the salts they contain, and are unobjectionable stewed, if it were not for the acetous fermentation of the added sugar. Here soda may be used. But where there is lithiasis the alkali ought to be potash. The gouty and the bilious alike are troubled with the products of the metamorphosis of albuminoids. Neither the lithates of the gouty nor the bile acids of the bilious are derived from the saccharine or farinaceous elements of the food. Milk puddings and stewed fruit are excellent for the dyspeptic, the bilious, and the gouty, and for one of those who suffer from taking sugar, nineteen would be all the better for stewed fruit. It does not seem a matter of indifference in lithiasis what forms of albuminoids are taken. The flesh of animals is rather converted into peptones by pepsin in an acid medium—that is, by gastric digestion,—than by trypsin in an alkaline medium. And such peptones seem specially liable to form lithates. Caseine is more specially digested by trypsin in the intestine, and such caseine peptones seem less readily converted into lithates. Caseine is the form of albuminoids, it seems to me, best suited to the gouty. Both for the classical diabetic and the glycosuric, cane sugar—the sugar of commerce—is bad, producing the unpleasant symptoms of sugar in the blood very readily. Yet many glycosuric individuals can take farinaceous matter with comparative immunity from discomfort. Starch in its way to grape-sugar is much less troublesome than is cane sugar passing into grape sugar—why I do not know, but the fact remains. Fruit stewed in the manner here advocated saves the gastric acidity from the acetous fermentation of the sugar in the dyspeptic, or with the glycosuric relieves him from the excess of cane sugar which disagrees with him. Where there is distinct gout, if stewed fruit be prepared with the bicarbonate of potash, it is converted into a therapeutic agent of no mean value.

A CASE OF BEAD-SWALLOWING—The *Lancet* for July 7 gives us a case where a child of 18 months swallowed and then passed with the feces 70 glass beads, hexagonal-sided, measuring each about three-tenths to one-fourth of an inch in length, and about two-tenths of an inch in diameter. The edges of the beads were sharp and ragged. Also an ordinary horn coat-button, three-quarters of an inch in diameter. No bad symptoms showed themselves, no medicine was given, and it took the child three days to dispose of them comfortably. There were none of those symptoms noted, so minutely detailed in a somewhat similar case, by Jack Hopkins, for Mr. Pickwick's benefit.

MYCETOMA OF THE FOOT—This interesting condition, as given by a case recorded by Surgeon-Major G. Bainbridge, in the Trans. Med. and Physical Soc.

of Bombay, No. 11, New Series, shows that this fungous growth may infect the whole system. Another fungus disease has been described by Dr. E. Parpek, in his pamphlet, "The Actinomycosis of Man," but the two forms are not closely alike.

The disease occurred in a native in government employ, aged 22 years, and dated back eleven years, when the bare foot was injured while walking, resulting in swelling, and the discharge of blood and pus from an opening in the left foot near the metatarsophalangeal articulation, which healed in a month's time. Three years later the wound re-opened, and discharged as before, with the addition of white grains in the discharge. Since then the limb has never been well, and during the past year and a half the disease has advanced rapidly. At present, the left foot is considerably enlarged, and has fifteen orifices or sinuses, and cicatrices of former openings on its surface, they are limited to the tarsus and metatarsus, the phalanges being sound. At the inner side of the calf of the leg, between the upper and middle third, is a tumor of an elongated ovoid, or fusiform shape, lying free beneath the skin, of softish, elastic consistence, painless, and presenting no signs of an inflammatory state. Superficial inguinal glands are much enlarged, tender, and orifices in their neighborhood discharge bloody pus in quantity, with the roe-like particles. Tumor in the left calf was excised, and proved to be a cyst with a rather firm fibrous wall, from $\frac{1}{8}$ to $\frac{1}{4}$ inch thick, containing a synovial-like fluid and numerous yellowish-white, fish-ova-like particles, characteristic of the pale variety of mycetoma. The cyst was composed of very compact fibrous tissue, containing in its meshes a considerable number of fat globules, and the contained processes and roe-like bodies consisted of an extremely delicate fibrillo-membranous basis, containing in its meshes minute spherical cells and very numerous oil-globules. The fibrillar structure had a radiated arrangement around numerous centers, so that the whole seemed to consist of concentric spheres of varying density, composed of radiating fibrillation, cells, and fat globules. The growth measured about $2\frac{1}{2}$ inches by $1\frac{1}{2}$.

OVARICTOMY IN A GIRL OF EIGHT AND A HALF YEARS OF AGE—Dr. Duchamp, in *La Loire Médicale*, July 15, describes a successful operation performed after anesthetizing the child while asleep, and resulting in the removal of the left ovary with the greater portion of the fallopian tube. The operation took three hours for its performance, and perfect relief was the result.

SPONGE GRAFTING—Surgeon-Major T. Cody, Trans. Bombay Medical and Physical Society, of Bombay, No. 11 new series, has had occasion to use this method in a case of carbuncle where, after the slough had detached itself, an excavation was left two and a half inches long by two broad, and varying in depth from a quarter of an inch in parts to an inch in others. The carbolyzed sponge was fitted almost exactly in the parts. To retain it in close apposition three silver wire sutures were applied. In four days'

time the sponge was firmly imbedded or grafted on the surface, so the sutures were removed. Repeated carbolic washings and dressings were employed with removal by the scissors of such parts of the sponge as projected, from time to time, until in six weeks' time the patient left the hospital with the surface completely healed over, and without the slightest puckering or depression to be seen in the cicatrix.

EXCESSIVE SWEATING OF THE HANDS AND FEET — In the September number of the American edition of the London *Lancet*, Dr Frederick H Anderson directs the sweating members to be well soaked twice a day in a solution of two drachms of chloride of ammonium and four drachms of carbonate of sodium in a pint of warm water. The sweating hands or feet should be kept in the warm solution until the skin is somewhat like the washer-woman's hand. Then wipe off the water, and rub them well with an embrocation, composed of tincture of iodine one drachm, camphorated soap liniment and glycerine each a drachm and a half, and compound liniment of belladonna one ounce. He claims for this treatment a speedy cure.

TREATMENT OF PSORIASIS — In the same number of the *Lancet*, Dr R H Peterson mentions a case of inveterate psoriasis, of fifteen years standing, cured in a few weeks by the application of an ointment composed of vaseline, oxide of zinc, and sanitas oil. The last mentioned ingredient was regarded as the efficient part of the prescription. It is worthy of further trial.

CURE OF PILES BY HYPODERMIC INJECTION — In the *Peoria Medical Monthly*, for August, Dr Wm H Veatch, of Carthage, Ill., briefly narrates six cases of well-marked piles or hæmorrhoidal tumors of a chronic character, all of which he treated with entire success by hypodermic injection of carbolic acid into the tumors. The solution used varied in different cases from equal parts of carbolic acid, glycerine, and water, to equal parts of carbolic acid and water without glycerine. He sums up his experience in this mode of treatment as follows: "In the past nine years I have treated many cases as severe as the ones reported, and I wish to say for the benefit of my extremely fearful brethren, that I have never seen a case of either peritonitis, embolism, or pyæmia, follow the treatment of any case, neither have I seen serious suppuration or ulceration result from treatment." This is probably all true, and yet such results may have been seen by others, and may yet happen in the practice of Dr Veatch.

MEDICAL LEGISLATION — The following law to regulate the Practice of Dentistry in the State of Missouri, was recently passed by the Legislature of that State. It shows another step in advance by a State Legislature. The time is not far distant, however, when all our legislative bodies will find it as

necessary for them to define what shall constitute an education, either in general medicine or in dentistry, sufficient to entitle a candidate to receive a diploma, as it is to require the candidate proposing to enter upon practice to be in possession of such a document. The following is the law,

"Be it enacted by the General Assembly of the State of Missouri, as follows

"SECTION 1 It shall be unlawful for any person to practice dentistry or dental surgery in the State of Missouri without first having received a diploma from a reputable dental college or a university duly incorporated or established under the laws of some one of the United States or of a foreign government. *Provided*, That nothing in section 1 of this act shall apply to any *bona fide* practitioner of dentistry or dental surgery in this State at the time of the passage of this act. *And provided*, That nothing in this act shall be so construed as to prevent physicians, surgeons, or others, from extracting teeth.

"SEC 2 Every person who shall hereafter engage in the practice of dentistry or dental surgery in this State, shall file a copy of his diploma with the clerk of the county court in the county in which he resides, and in the city of St. Louis with the city register, which copy shall be sworn to by the party filing the same and the clerk shall give a certificate of such fact, with the seal of the county court attached thereto, to such party filing the copy of his diploma, and shall file and register the name of the person, the date of filing, and the nature of the instrument, in a book to be kept by him for that purpose, and as a compensation for his services, the said clerk, for filing and registering the same, shall receive a fee of one dollar, to be paid by the person filing the diploma.

"SEC 3 Every *bona fide* practitioner of dentistry and dental surgery residing in this State at the time of the passage of this act and desiring to continue the same, shall, within ninety days after the passage of this act, file an affidavit of the said facts with the clerk of the county court of the county in which he resides, or with the city register of the city of St. Louis, if he resides in the city of St. Louis, and the said clerk or register, as the case may be, shall register the name of, and give a certificate to, the party filing the affidavit, in like manner and of like effect as hereinbefore provided, and for such services shall receive a fee of one dollar, to be paid by the party filing the affidavit.

"SEC 4 All certificates issued under the provisions of this act shall be *prima facie* evidence of the right of the holder to practice under this act, which right it shall be incumbent upon the holder to prove under all prosecutions under this act.

"SEC 5 Every person violating any of the provisions of this act shall, upon conviction thereof, be deemed guilty of a misdemeanor, and be punished by a fine of not less than twenty five, nor more than two hundred dollars for each offense, and "fines so collected shall belong to and be applied to the common school fund of the county in which committed."

per centage on the wages of all the employes to pay it

YELLOW FEVER —On the sixteenth of August Surgeon Owen, in charge of the medical department of the naval station, Pensacola, reported to the Surgeon General of the Navy that two well marked cases of this disease had occurred among the Marine Guard and had been sent to the Naval Hospital. The authorities of the city of Pensacola immediately established quarantine and a cordon for preventing all intercourse with the naval station and hospital. Commander Welch received instructions to transfer the Marine Guard to Cape Ason, six miles from the navy yard, for isolation. Active measures have been taken by the co-operation of the proper authorities, both at Washington and Pensacola, to prevent the spread of the disease. Yet new cases have continued to occur in the navy yard and hospital. Dispatches of the 29th inst state the whole number of cases up to that date to be twelve, and six deaths. Among the latter are Surgeon Owen and Paymaster Brown. The same dispatches of the twenty-ninth of August state that the city of Pensacola, with a population of 10,000, remained entirely free from the fever and in a healthy condition. We have thus far seen no mention of any particular source from which the members of the Marine Guard, first attacked, received the infection. There are no present indications of the yellow fever either at New Orleans, Ship Island, or other Southern ports. Small-pox continues to linger in New Orleans, there having been sixteen deaths from it during the week ending August 11, 1883.

EPIDEMIC CHOLERA —This disease appears to be slowly declining in the number of cases, both in Egypt and India. A few cases have occurred in Beyrout, Syria. M. Pasteur's investigation corps had arrived at Alexandria on the 16th of August.

We ask the attention of our readers to the following communication

WAR DEPARTMENT, }
SURGEON GENERAL'S OFFICE }
WASHINGTON, D C Aug 28, 1883 }
PROFESSOR N S DAVIS, EDITOR JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION, NO 65 RANDOLPH STREET, CHICAGO, ILL ,

SIR —Congress having appropriated a small sum for furnishing special surgical appliances to those disabled in the military or naval service, your co-operation is respectfully invited in order that this relief may reach the class of persons intended to be benefited.

This office is desirous of obtaining authentic infor-

mation regarding all existing cases of severe and unusual injuries. Should you have occasion to report such, it will be found useful to bear in mind the following points

1 As no money commutation is authorized, only such cases need be presented as offer a fair prospect of being relieved by surgical or mechanical appliances.

2 Artificial limbs and apparatus for disabled limbs being otherwise provided for by law, the injuries here in view are almost exclusively those affecting the head, face or trunk.

3 As trusses are furnished under special legislation hernia, when not complicated with other injuries, is not to be understood as covered by this appropriation for special appliances.

4 As the appropriation is small, it is proper that it be expended only on the most meritorious cases. It is therefore not intended to furnish appliances which are ordinarily within the means of the individual, nor those that are of a character so perishable that it would be difficult to keep up the supply. Regard is to be had chiefly to the severity of the injury, and the ability of the sufferer, unassisted, to procure relief.

Very respectfully, your obedient servant,

C H CRANE,
Surgeon General, U S Army

DOMESTIC CORRESPONDENCE

TREATMENT OF PROLAPSUS ANI

(FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION)

In recent cases of prolapsus ani in young children, from the age of six months up to six years, the plan of treatment which has been adopted by me with uniform success is as follows. After each evacuation of the bowels, and when prolapsus has taken place, the nurse is instructed to carefully reduce the prolapsus, and to immediately inject into the rectum from two to four ounces of cold water containing from twenty drops to half a drachm of the fl ex hammamelis. This is continued from day to day until the parts are restored to health, which usually requires from one to four weeks.

During treatment if the bowels become constipated they should be regulated by an occasional dose of castor oil or some other mild laxative, and, in the meantime, all exciting causes must be removed, and the patient's general health carefully looked after.

J F JENKINS, M D

TECUMSEH, Mich

RUPTURE OF HYDATID TUMOR INTO THE PERITONEAL CAVITY, WITH RECOVERY

August 25, 1883

This case is reported for its rarity, in fact non-precedence, as far as we are able to ascertain.

E C, age 43, American, county sheriff. Some three years ago this gentleman called upon me for relief from an alleged scrotal hernia of the right side. Examination disclosed the disease as an in-

durated testicle He had pain in the right lumbar region, which was attributed to the supposed hernia, this pain had at intervals annoyed him for several years, during which time its true source had escaped detection Previous to his call upon me he had noticed an enlargement in his right side, which had slowly increased in size, and which, in connection with resulting symptoms, was the occasion of his seeking aid He was slightly jaundiced, with loss of appetite and tenderness of the hepatic region, the latter much aggravated by turning while in a recumbent position The patient was not confined to his bed, but was conscious of a progressive debility and steady increase of the symptoms described At the lower border of the ribs upon the right side, and evidently attached to the inferior surface of the liver, was found a tumor about the size of an orange, it was tense at times, at other times more yielding and slightly tender under manipulation At this time Dr Fletcher, of Lisbon, Iowa, a relative of the patient, was called to visit Mr C as consultant, whereupon it was agreed that our patient was suffering from a hepatic growth, and, aside from counter irritants and strict quiet being enjoined, little else was advised, and a specific diagnosis was reserved Under these conditions our patient slowly improved, the tumor seemed to partially subside, and he resumed his official duties until January, 1882, when, after unusual exposure and exertion in the arrest of a criminal, the lumbar pains returned The tumor again became prominent, and, in an aggravated form, all the former symptoms reappeared The symptoms were all reasonably attributable to pressure of the growth upon adjacent parts No rigors pointing to abscess, no cancerous cachexia, the long duration of the disease also excluding the theory of malignant disease or obstructed gall bladder Hydatid disease was diagnosed as the probable difficulty, and early puncture the only recourse

Dr Fletcher was again requested to see the patient, who, with my friend Dr N Bryant, of this city, met me in the case. To verify the diagnosis, it was determined to obtain a specimen of the contents of the tumor by using an ordinary hypodermic needle. The growth extended nearly to the umbilicus, and to steady it, Dr F firmly compressed its area, and upon introducing the needle, the barrel of the instrument at once filled with a clear, spring-like fluid. Immediately upon the withdrawal of the needle, the patient complained of an acute pain above the pubes, some distance below the location of the tumor. The pain rapidly increased in intensity, in spite of an anodyne and fomentations. It becoming evident that our patient was suffering from no ordinary complication, rupture of the cyst was suspected, whereupon an examination fully verified the apprehension, is the tumor had wholly disappeared. To abbreviate the history of the case during the next four hours, it needs only to be stated that during this time the patient seemed any moment likely to succumb from shock, dryness of surface, pinched features, extremities cold, pulse absent. During a period of five hours, he received four grains of morphia sulph. hypodermically, also two injections of tinct. opii of ʒj each. No

approach to narcosis a parent Warmth and fomentations were of course employed The abdomen was tense and hard, but not swollen After four hours, the terrific pain began to yield, the natural color returned, and the pulse improved The specimen of fluid obtained from the cyst contained no albumen, and was beyond question hydatid Its bland, unirritating character favored its rapid absorption by the peritoneal sac, thus helping to save our patient There is unbroken uniformity in the testimony of authorities as to the invariable fatality of rupture of such a cyst into the peritoneal sac Gross says unconditionally, that it is fatal May not the rapid antidotal effect of opium as secured by its heroic hypodermic use, account for success, when, were we to use it per orem, the time required for its effect would prove a fatal delay? Perhaps we do not fully appreciate this advantage of hypodermic medication Some local tenderness over the former region of the tumor continued for a time, as the result of inflammation in the torn sac The attendant symptoms rapidly subsided, and now, about one year from the date of the accident, Mr C is free from any sign of the trouble, and enjoys a state of health unprecedented in excellence for many long years

N C MARKHAM, M D

INDEPENDENCE, IOWA

BITES OF SERPENTS

In the article on the Medical and Surgical Practice of the Aborigines of America, contributed by I. Andros, M.D., and published in your issue of Aug. 4, it is stated that some tribes apply the bruised wild onion for the stings of bees and wasps. I am not aware that any similar practice has been recommended in the literature of our profession, though the juice of the common onion is an excellent application for this purpose. It should be thoroughly applied to the wound immediately after the sting has been received. It acts as a very perfect antidote to the poison, prevents swelling and speedily relieves the pain. No treatment for the bite of the rattlesnake could be better than the Indian practice of sucking the wound, and this involves no danger to the operator, for the venom is innocuous when taken into the stomach. The Indians probably acted wisely in omitting to use internal remedies, for it is not likely that the poison can be neutralized by antidotes administered through the digestive system. Brainard demonstrated the antidotal powers of iodine when mixed with the venom of serpents, but he injected the antidote, with a hypodermic syringe, among the tissues where the poison had been received. The local effects of the poison of the prairie rattlesnake, or *Crotalus*, seem to me to be in excess of the constitutional ones. I have seen a bite on the finger cause great swelling of the entire arm, attended with a considerable suggested gangrene, and yet had no appreciable constitutional effects to cause any serious result. In one case I gave great relief to the patient by incision into the parts where the poison was retained. Though two hours had elapsed after the bite, the local case was the same. In the case of the rattlesnake

that the pamphlet under consideration has not appeared in good time and is calculated to do much good. On the contrary, it is timely in its appearance and full of important facts and suggestions, as the following quotations, which constitute the closing paragraphs, and relate to the "Duty of Legislative Bodies," will show

"Almost any amount of money has been expended in building and managing lunatic hospitals, but nothing to prevent insanity. If one-tenth, or even one-hundredth of the means now so lavishly bestowed upon this unfortunate class in large institutions were expended in different ways to *prevent insanity*, in cutting off its supplies, what a difference it might make in diminishing the number of the insane and reducing the amount of suffering! How long will it take the public, and legislative bodies particularly, to learn the truth of the proverb, 'An ounce of prevention is worth a pound of cure!'"

"If, by a general diffusion of a knowledge of hygiene, and the application of sanitary laws, one-quarter or more of the sickness and premature mortality can be prevented, certainly some small portion of the existing insanity should be prevented by similar means, especially as preventing disease, and improving the general health of the people must aid in checking the first approaches of insanity

"It surely should be the settled policy of all legislative bodies and the executive officers of every State to carry on systematic measures for the prevention of insanity, and, unless such provision is made by legislative action, the work will never be done. The number of the insane and of lunatic hospitals, together with the burdens of their expense, will increase more and more

"Let *prevention*, then, receive some attention. The claims of humanity and economy demand it

"But no movement of this kind will be made unless encouraged by legislative action. Public bodies, when called upon to make large expenditures year after year, often resort to the the wise expedient of providing what is called a "sinking fund," to aid in liquidating the debt. If some systematic and efficient measures could be employed to prevent persons from becoming insane, even if the number were small, what better sinking fund could be devised?"

"It is fifty years since the first State hospital was opened for the insane, yet probably at no period were this unfortunate class increasing faster than at the present time. This is especially true of the chronic and pauper class. If they fail to receive proper treatment in private practice, and the hospitals cure only about one-half, the balance is added every year to the public dependents. How long can such a state of things continue? And, unless reform or improvement comes from some quarter, what and where is the end to be?"

"Some one may inquire, What can we do? When such inquiries are made in earnest, and by the proper authorities, the work will have commenced. Ways and means will soon be devised. Questions frequently constitute the first step in reform

"For how long are we to continue building great institutions, and making large appropriations every

year for carrying them on? At the same time, insanity is constantly increasing, making the burdens of taxation every year heavier and heavier. It may well become us to adopt the confession (already quoted) made before the lunacy committee of Parliament: 'The fact is, we have allowed a terrible evil to grow up among us, and we have been content to lop its branches, leaving the growth as luxuriant as ever, instead of directing our efforts to destroy it at the roots'"

MALARIAL POISONING THE CAUSE OF HÆMATURIA
With an Appendix By W. O'DANIEL, A. M., M. D.,
Bullards, Georgia

This is a pamphlet of fourteen pages, reprinted from the Transactions of the Medical Association of Georgia, 1882

The writer adduces satisfactory proof of the connection between the action of concentrated malarial poison and a dangerous form of hæmaturia. He relates some instructive cases with their treatment, and closes his paper with the following question and answer

"Why has the malignancy of malarial fevers so increased, *especially* in the cotton-growing States, since the war? One of the most potent and rational causes, to our mind, is on account of the failure on the part of agriculturists generally to *properly* drain their bottom, branch and creek lands, as they did before the war, thereby preventing vegetable decomposition during the summer and autumn months, which is sure to produce miasmatic fevers

"Such lands were then appreciated and kept in a high state of cultivation, and the annual return from the crops *abundantly* repaid for the trouble, whereas now, the scarcity of and a want of reliable labor for the accomplishment of such work, renders drainage impossible in many instances, hence the cause of the poisonous influences. Therefore, those who persist in residing in close proximity to soils which are allowed to remain in a condition which is favorable to the production of these foul emanations, malaria, miasma, spores, cryptogams, germs, bacteria, bacillus malarie, or whatever they may be called, *may expect with great certainty* annual visitations of malarial fevers caused by these toxic influences"

ANATOMY, DESCRIPTIVE AND SURGICAL by HENRY GRAY, F. R. S., with an Introduction on General Anatomy and Development, by T. Holmes. Edited by T. P. Pick. A new American from tenth English edition, with Landmarks, Medical and Surgical, by L. Holden. H. C. Lea's Sons & Co., Philadelphia

There is probably no work used so universally by physicians and medical students as this one. It is deserving of the confidence that they repose in it. If the present edition is compared with that issued ten years ago, one will readily see how much it has been improved in that time. Many pages have been added to the text, especially in those parts that treat of histology, and many new cuts have been introduced, and old ones modified. In the matter of

illustration there is much room still for improvement. Many of the old cuts, illustrations of minute anatomy, are too much diagrammatic, and not sufficiently realistic. Another criticism upon them, also, is the failure to say just how much the specimens were magnified. Much improvement has also been made in the illustrations of the relations of the visceral organs, but there is also room for further improvement here. For example, the old cut of the pelvic organs is retained, showing the vagina and rectum unnaturally dilated. The present edition is well printed on good paper, and is well bound. The work is so thoroughly well known that an extended notice here is unnecessary.

SANITARY AND STATISTICAL REPORT OF THE SURGEON-GENERAL OF THE NAVY FOR THE YEAR 1881
Washington, Government Printing-Office 1883

This, the annual report of Surgeon-General Wales, is a bulky octavo of 684 pages. In his introductory remarks, he calls attention to the fact that a laboratory has been established for original work, and that a museum and library have been founded. The library already contains nearly four thousand volumes. The want of proper appropriations for the hospitals and other branches of the service is justly deplored, in several instances about one-half the amount required being appropriated. The valuable services rendered by the hospital branch are well shown in the summing up by figures—giving 14,013 cases as the total number treated during the year. An interesting table is given referring to the examination of recruits, of whom 8,807 presented themselves, and of these 2,750 were rejected, or 31 per cent. The causes of rejection are tabulated, and the largest number, 661, is from defective development, next to this come diseases of the eye, 590. Syphilis we find put down at 115, diseases of the digestive system 456, and diseases of the circulatory system, 364, make up of course a large proportion, while diseases of the respiratory system are put very low, 85. A series of interesting tables are given, which form valuable additions to the statistics of diseases, their causes, and the influence of age upon them. The work of Dr T. H. Streets in studying the different organisms of air dust is given at some length, with interesting photo-micrographic delineations of bacteria, and in connection with it, the work of a board of survey for sanitary purposes on the proposed (now accepted) site for a new Naval Observatory, shows how thorough the facilities for examining into air, drainage materials and the soil have become. The analyses were done by Drs Griffith and Kidder. The reports on the sanitary conditions of our squadrons, and of the naval hospitals, form the bulk of the report, and some interesting details of cases are given, but there is no table of contents, the cases as printed are not given sufficiently individual character by distinct topography, and the index is very imperfect. Dr J. M. Flint closes the volume with a report on the pharmacopœias, valuable in its details and criticisms.

W. L.

MISCELLANEOUS

T. H. Huxley and J. Tomes have been recently elected Honorary Fellows of the Royal College of Surgeons.

THE fourteenth annual meeting of the Virginia State Medical Society will be held at Roxbridge Alum Springs, September 4 to 6.

THE King of Prussia has given permission to Dr Koch to wear the Commanders' Cross of the Royal Spanish Catholic Order of Isabella.

THE Duval Prize has been awarded to Dr Desnos by the Paris Society of Surgery, for an essay on "Lithotripsy in Prolonged Sitzings."

DR H. J. BIGELOW, of Boston, Prof. Charcot of Paris, Prof. Du Bois Reymond, of Berlin, and M. L. Pasteur, of Paris, have been elected Foreign Honorary Fellows of the Royal Medical and Chirurgical Society of London.

THE Garfield Hospital Board, of Washington, has bought a double brick house and seven acres of land for \$38,000, and has money in bank to pay for a wing costing \$15,000, which it is proposed to add to the present building. It is expected that the hospital will soon be opened for patients. There is no truth in the story that the hospital project has been abandoned, and that the money given for that purpose will be turned over to the monument committee.

DR H. NEWELL MARTIN, professor of biology in John Hopkins' University, is Croonian lecturer of the Royal Society of London for the current year. The Croonian lecture was founded by Lady Sadler, in fulfillment of a plan of her former husband, Dr Croone, one of the founders and the first registrar of the Royal Society. By her will, made in 1701, she devised one fifth of the clear rent of the King's Head Tavern, in or near Old Fish street, London, at the corner of Lambeth Hill, to be vested in the Royal Society, for the support of a lecture and illustrative experiment on local motion. For many years past there has been no formal deliverance of the lecture. The council of the Royal Society select from the papers presented to them during the preceding twelve months that one dealing with animal motion which they think most noteworthy, and publish it as the Croonian lecture, sending to the author the sum derived from Lady Sadler's bequest. The amount of money is trivial, but the appointment as Croonian lecturer is a highly prized distinction. The paper by Professor Martin, which is to be printed as the Croonian lecture for 1883, is on the 'Effect of Changes of Temperature on the Beat of the Heart.' It is interesting to note that the first Croonian lecture delivered by Dr Stuart in 1738 was on the 'Motion of the Heart'—*Best Med. and Surg. Journal*.

NECROLOGICAL

WILLARD, MOSES THOMPSON, M D, of Concord, N H, was born in Bow, N H, June 21, 1806, died at his residence in Center street, Concord, May 31, 1883. He was the son of Moses F Willard. He was educated at the Pembroke Academy, and took his medical degree from the Medical College at Hanover in 1835. Soon after graduating he began the practice of dentistry in Concord, and was extensively patronized. I am not informed that he ever engaged in the practice of medicine. His name appears as a delegate from the Center District Medical Society, of New Hampshire, to the American Medical Association, in 1849. He was public spirited and popular as a citizen. He served as Alderman in 1857-8, and Mayor of the city in 1859-60, and Postmaster under Johnson and Grant. He was an ardent Son of Temperance, and long identified with the interests of public education. Dr Willard was twice married, first to Mary B Morgan, of Pembroke, after her death, to Zelda Morgan, of the same place, who died about two years before the Doctor. He left no children.

J M T

WILBUR, HARVEY BACHUS, M D, of Syracuse, N Y, was born at Wendell, Mass, August 18, 1820, and died suddenly at the State Idiot Asylum in Syracuse, May 1, 1883. He was the son of the Rev Harvey Wilbur, of Massachusetts. He was first in study, and graduated at Amherst College in 1838, taught school for a short time, and studied engineering, and then medicine, and practiced for a time at Lowell, and then at Barre, Mass. Became interested in the welfare and education of idiots, and in 1848 received several into his own house to educate. In 1851 he induced the Legislature of New York to establish an experimental school at Albany, which proved so satisfactory as to lead to a permanent and fully organized institution for idiots at Syracuse in 1854, which is known as the State Asylum for Idiots. Dr Wilbur continued its efficient superintendent until his death. He published various reports and papers on idiocy, which show his thorough familiarity with his subject. In 1860 he attended the American Medical Association as a delegate from the New York State Medical Society.

J M T

HOLMES, CHRISTOPHER COLUMBUS, M D, of Milton, Mass, was born in Kingston, Mass, Sept 14, 1817, died at his residence in Milton, July 16, 1884. His academic education was obtained at Harvard College, where he graduated in 1837. His medical degree was received from the same university. He then served for a year as junior physician in the Massachusetts General Hospital, after which he settled to practice in Milton, where he was actively engaged in the duties of his profession until the time of his death. His field of practice was a laborious one, often calling upon him to visit patients in Dorchester, Quincy, Canton, and other remote towns. Although devoted to his profession, and conscientious in the discharge of its obligations, he found time to

interest himself in all public matters which benefited the people. During the civil war he was commander of the cadets, a local military organization. He was a man of refined tastes and eminent social qualities, and his presence in the social circle and the sick room always brought sunshine. He will long be remembered by his townsmen and by his professional brethren as a steadfast friend and wise counsellor, and a Christian gentleman. He was a member of the Massachusetts Medical Society, and since 1853 of the American Medical Association. He leaves a wife and three children.

J M T

From data furnished by Dr H O Marcy

HAUZHURST, D C, M D, of Battle Creek, Michigan, died of small-pox in Paris, France, Feb 16, 1882. Dr Hauzhurst was born in Oxford, Oakland county, Michigan, and was 39 years of age at the time of his death. He early developed a love for scientific study. After spending some years in Bedford Seminary he gave up two years to the special study of geology and became quite proficient in this science. He then spent one year at the Michigan State Agricultural College in the practical study of chemistry. Subsequently, having practiced dentistry for several years, he entered the Michigan State University, continuing attendance, with some interruptions, for five years, until 1877, graduating first in the dental department in 1876, and in the medical department in 1877. In 1878 he became a member of the State Medical Society. In 1881 he married a daughter of Hon T B Skinner, of Battle Creek, and the happy pair went to Paris on their bridal tour, where the doctor was pursuing his studies when he fell a victim, as many of his friends think, to his non belief in the value and efficiency of vaccination in preventing small-pox. It is stated that he had not been vaccinated. Dr Hauzhurst held that dentistry should be considered a specialty in a medical education, and that every dentist should be thoroughly versed in medical science. By his death scientific medicine has lost one of its most enthusiastic workers, and this Association an honored member. He was an earnest, persistent student, a quiet, modest gentleman, a faithful friend, a true physician, and an honest man. The Calhoun County Medical Society, on hearing of the doctor's death, convened and passed a series of resolutions, expressive of the highest esteem of his professional worth, and of sympathy with his family.

[Sketch forwarded by Dr W F BREAKEY, of Michigan]

FARRAND, DAVID OSBURN, M D, was born in Ann Arbor, April 23, 1837, and was of Huguenot descent. He was the youngest of four children born to Bethuel and Deborah Farrand.

After only a few days of illness, during which his friends entertained no serious fears for his safety until his last hours, Dr D O Farrand died at 5 o'clock Sunday morning, March 19, 1883.

His father founded the first water works in Detroit, and after removing to Ann Arbor became the first judge of probate of Washtenaw county.

Dr Farrand received his education in the common and private schools, and subsequently entered the university, where he pursued a literary course. From there he went to Munich, Bavaria, to complete his studies. He remained in Munich one year, and, returning in 1858, entered the wholesale drug-house of his brother, Jacob S. Farrand. He remained there two years, having in the meantime decided to become a physician. In order to pursue his studies he entered the New York College of Physicians and Surgeons. Graduating in 1862 he entered the regular army as assistant surgeon, and made his headquarters at St. Louis, Mo. In 1865 he resigned his position. The year previous he attended the late Gen. Lewis Cass, and remained with him until his death, which event took place in the room afterward occupied by Dr. Farrand for private consultations, at his office adjoining his residence on Fort street. In 1866 Dr. Farrand was taken into partnership with the late Dr. Zina Pitcher, which continued until Dr. Pitcher's death in 1871. September 11, 1866, he was united in marriage to Miss Elizabeth Lewis Twombly, of Niles, Mich., daughter of Royal T. Twombly, of that city, and now of Fort Worth, Tex. Mrs. Farrand and three children, Royal T., aged 15, May, aged 13, and Elizabeth T., aged 12 years, are now living. He has three brothers, J. B. and B. C., of Port Huron, and Jacob S., of Detroit.

Dr. Farrand was a member of the American Medical Association, of the Michigan State Medical Association, and the Detroit Medical and Library Association. He was for six years a member of the Detroit School Board. At the time of his death, and for many years previous, he was surgeon to the Harper Hospital and of the Metropolitan police, surgeon-in-chief of the Michigan Central Railroad, chief medical examiner of the Michigan Mutual Life Insurance Company, and one of its directors.

In all that pertained to the interests of the community he was active. In political affairs he was a Republican, as earnest as he was well informed, and he used to say that he found his only recreation in politics. His endeavor was for the public good. He made earnest efforts for the advancement of the cause of popular education in this city, and was an effective advocate of the recent change in the method of selecting the members of the Board of Education. He was instrumental in securing the establishment of the temporary Board of Health during the small pox season of 1881, and during the continuance of that Board he took the greatest interest in it. It was through his instrumentality, chiefly, that the present permanent Board of Health was organized. He was the author of the bill creating it, and was the first member of the Board appointed. He was unanimously chosen its first president. He attended all the meetings of the Board, and took an intense interest in the work performed by it. He was ever willing to take upon himself labor when he thought he could thereby serve the interests of the public or of any friend. He was always in earnest and he was always cheerful. One never met a more pleasant, affable, courteous, and perfect gentleman than Dr. Farrand.

After the death of Dr. Pitcher, Dr. Farrand formed a co-partnership with Dr. George B. Foster, which lasted until the latter's death in 1881. In a business which aggregated more than \$20,000 per year, there never was a stroke of the pen between the two partners.

The sad prediction of many friends that Dr. Farrand would die of over-work, seems to have come only too true. It is but a few months since he recovered from a protracted and serious illness, the result of doing too much, and the exciting cause of his fatal malady was over exertion. In spite of his exacting duties he never pleaded lack of time when asked to do a favor, and his immense work was so systematized that only his immediate acquaintances knew the extent of it. He died in his prime, having literally given his noble life to his friends, who will now so deeply mourn his untimely departure, and long hold him in loving remembrance.

The Board of Health and the Medical Library Association as well as the Medical Society convened in special session, and each passed appropriate resolutions of respect for his memory and of condolence with his family.

Forwarded by DR. W. BRACKY

FUSSELL, EDWIN, M. D., was born in Chester county, Pennsylvania, June 14, 1813. His boyhood was passed in working on his father's farm, and his education was obtained chiefly by study at home. At the age of twenty he began the study of medicine in the University of Pennsylvania, and graduated in 1835. After practicing one year in his native place, he removed to Indiana, where he remained seven years. From there, after six years more of residence in Chester county, Pennsylvania, he went to Philadelphia, where he remained until 1868. In 1853 he was elected to the professorship of anatomy and histology in the Woman's Medical College of Pennsylvania, which position he filled very ably until 1857, when he was transferred to the chair of obstetrics and the diseases of women and children. This was a position more congenial to his tastes and more in accord with his attainments, for his gentle and sympathetic disposition had inclined him to that special department of practice, and in it he had achieved a well merited reputation. In 1865 he accepted a transfer to the chair of principles and practice of medicine, which he continued to fill until 1868, when failing health compelled his retirement, for a few years from his profession to a farm on the sea-shore, near Cape May.

When Dr. Fussell accepted a professorship in the Woman's Medical College he did so at the risk of forfeiting the fellowship of his medical brethren, for the cause represented by that college was intensely unpopular among conservative people, and especially so to physicians, who could not overcome at once a feeling of professional jealousy toward women physicians. But he was accustomed to encounter public disapproval in his resolute advocacy of temperance and abolition. Indeed, he inherited the mental temperament that impelled him to do whatever he believed might be of public benefit, though

at the cost of personal disadvantage. It was his father's brother, Dr Bartholomew Fussell, of Hamorton, Chester county, who first conceived the idea of the Woman's Medical College, and he, too, was an ardent advocate of temperance and the abolition of slavery.

In 1849 he invited Drs Edwin Fussell, Franklin Taylor, Ezra Michener, of New Garden, Chester county, and the writer of this memoir, to confer with him on the subject at his home in Hamorton.

In 1871, Dr Fussell removed to Media, Delaware county, and resumed the practice of medicine. He was a member of the Philadelphia Academy of Natural Sciences, of the Delaware County Institute of Science, of the Delaware County Medical Society, of the Medical Society of the State of Pennsylvania, and of the American Medical Association, in 1876. He attended but one meeting. As a member of our county society, he was a faithful attendant, a prudent counselor, and always a cheerful presence to the younger members.

In his domestic and social relations he was amply repaid for all he suffered as a philanthropist. In his family he was the affectionate husband of a loving wife, and the revered father of dutiful children. In society, he had always many warm friends among people of cultivated intellects and refined tastes. No one who was capable of appreciating him could fail to respect him. Yet when those are all told—the record of a life busy in doing good—the best can never be told. The “little, nameless, unremembered acts of kindness and of love,” the kindly smile, the gentle word, the cheery joke, these were the daily habit of his life, and are sunk deep in the hearts of those who knew him.

ELWOOD HARVEY, M D

COX, EDWARD, M D, of Battle Creek, Mich., was born in Cambridge, Washington county, N Y, died at his residence in Battle Creek, Mich., September 19, 1882. He was the son of Silas and Abigail Cox. Having acquired a good ordinary education he studied medicine partly with Dr Benjamin Trumbull, of Boradina, and Dr C Campbell, of South Butler, N Y. He attended lectures at Geneva Medical College, New York, where he graduated M D, in 1839. He began practice in Wayne county, N Y, but in September of 1839, removed to Battle Creek, Mich., then a small village.

A notice of the character and life of Dr Cox is published in the columns of the *Detroit Lancet*, and also in the *Battle Creek Journal*, and is a deserved tribute to the memory of a good man.

“Another of the pioneer physicians of Michigan has gone. For more than forty years Dr Cox has lived and labored in Battle Creek. He was an excellent doctor, but he was far more than a doctor. He was a man among men, acting, thinking and speaking in reference to all questions of importance, to the welfare of the city, his State, and his country. While a politician, in the best sense of that term, he was more. He was even a patriot. When the war with the South broke out, although a Democrat he at once suggested, and succeeded in realizing the suggestion, that the flag poles of the separate pa-

tries should be placed together as an emblem to those who should see it that in support of the country the mass of the members of both parties in Battle Creek were one. Until July 1 Dr Cox continued to meet all the calls of an extensive general practice. Attacked first with pneumonia, he finally succumbed on September 19, 1882. At his funeral on the 21st were gathered representatives of the medical profession from all parts of the State of Michigan, as well as from his town and surrounding counties. Nor was the attendance of these gentlemen a mere formal service, as their speeches at the memorial services will abundantly testify. It is very unusual, to say the least, that so many friends in all professions and walks of life for many years testify so uniformly to the value to them and to the world of a strong, manly heart and head in a member of the medical profession.”

A memorial notice of the life and character of Dr Cox was read by Dr Jerome at meeting of Board of Counselors for Detroit Medical College and remarks made by members of that body, expressing the high estimate in which he was held by his professional brethren and friends. The Committee on Necrology of the State Medical Society report to that society an appreciative biographical sketch with resolutions of respect for his worth and sympathy for his family, which will be published in transactions of society for 1883.

W F B

DOUGHERTY, ALEXANDER N, M D, of Newark, N J, was born in that city in 1820, died suddenly of disease of the heart Nov 29th, 1882. He was the son of Alexander Dougherty, a wealthy leather manufacturer of Newark. The subject of this sketch was a graduate of Oberlin College, Ohio. He then began the study of medicine and after attending the usual courses of lectures, received the degree of M D from the College of Physicians and Surgeons in New York. In 1845 he began practice in the home-stead, and soon acquired a large and lucrative business. When the war between the States broke out he entered the military service as surgeon of the 4th N J regiment with rank of major. He was with the regiment at Fair Oaks, Malvern Hill and all through the campaign of “on to Richmond,” and later at Antietam and Chancellorville was at his post of duty. Soon after entering the service he was made brigade surgeon of Kearney's N J Brigade, and then director of the second army corps. When General Hancock was wounded at Gettysburgh Dr Dougherty was immediately by his side and dressed his wound. Dr Dougherty was brevetted Oct 12th, 1865, colonel for meritorious services.

After the war Dr Dougherty resumed his practice. When the New Jersey Home for Disabled Soldiers was organized he was appointed commander and surgeon, and held the position to the time of his death. In 1867 he was appointed postmaster, and held the position until 1869, when he was removed by President Grant. He served in the various offices of the State Medical Society, including that of president and contributed a number of papers to the transactions. He was on the staff of St Michael's and also on the Barnabas Hospital. He leaves a wife and four sons.

J M T

UNIVERSITY OF PENNSYLVANIA

DR F A GENTH
CHEMIST

West Philadelphia, January 24th, 1883

I have analyzed the Sulphate of Quinine Pills manufactured by Messrs WILLIAM R WARNER & Co., and those purporting to contain, according to the label, two grains, I found to contain fully two grains of Sulphate of Quinine in each pill

F A GENTH

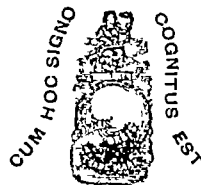
Philadelphia, December 22d, 1882

An analysis of seven samples of Quinine Pills, obtained without knowledge of the manufacturers, was made and published in the American Journal of Pharmacy by me, and those made by WILLIAM R WARNER & Co were found to be correct as to quantity and purity of Quinine

HENRY TRIMBLE,

(Analytical Chemist.)

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Otology, by PROF STRAWBRIDGE

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DISEASES PECULIAR TO WOMEN AND CHILDREN

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DISEASES OF THE EYE,

GEORGE C HARLAN, M D

GENITO URINARY AND VENEREAL DISEASES,

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ORIGINAL ARTICLES

A CASE ILLUSTRATING THE SEGMENTAL FEATURE OF GLAUCOMA

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[Presented to the Section on Ophthalmology, Otology and Laryngology]

On the 30th of November, 1878, I was called to see Miss M. M., aged 41 years.

She had been suffering with extreme pain in her eyes for four weeks. The disease began in the left, and one week later in the right eye. The vision failed during a night in each eye, and from the periphery of the visual field, until at its center, in the right eye, she could only discern the light of a candle, and in the left distinguish the outlines of a candle light.

The pain was of the most acute character, aggravated at night, deep-seated in the orbit, and radiated over the brow and in the nasal region. The general system was much depressed—enfeebled—from the suffering endured.

The history showed excessive use of eyes on fine work, and exposure to cold while riding in a carriage, the ill effects of which were increased by wet or damp feet.

Malaria was excluded as a cause.

Tension in each eye = +1. Conjunctival injection was marked. The corneae were not clouded, for the pupils could be seen dilated, and their margins slightly pigmented and irregular.

The vitreous was clouded, but there were no flocculi. The anterior chambers were smaller than normal, and the lens of each eye advanced. There was pigment (limited) upon the anterior lens capsule. The fundus of either eye could be made out with difficulty. The papillae were, however, clouded, and margins obscured, at points, as well as their vessels. Their arteries were smaller, and veins slightly larger than normal, and these curved over the disc-margins and were lost and appeared again on the papillae at points.

The cupping of the discs was not marked. There was no pulsation of the arteria centralis.

We decided the pathology of this case to be chorio-retinitis, and the diagnosis acute glaucoma. The prognosis was unfavorable from the very acute character of the disease, and its long duration—four weeks. The treatment advised was iridectomy, and

temporarily opium and biniodide of mercury was given until she could be brought to this place.

On the 2d day of December following, after chloro-etherizing (adding a few drops of amyl nitrite), I did an upper iridectomy upon each eye simultaneously, secured conjunctival flaps, and removed about one-fifth of each iris. The latter was so dilated it was not to fall into the incisions, but with forceps it was well drawn out, especially at the angles of the corneal wound, and excised as close to the corner as possible. Some blood was removed from the interior chambers by stroking the cornea.

The incisions adapted nicely, and there was no enclavement of the iris. Subsequently each cornea and iris healed rapidly and perfectly. Reaction was favorable from anesthesia and operation. Within three hours after the operation, two hypodermatics of morphine in the temples, each gr. $\frac{1}{6}$, was given to control the pain, which was relieved. On December 3 a mixture of croton and hydrate of chloral and morphine was employed, which relieved the pain and procured sleep. On the 5th of December she suffered no pain, the eyes looked well and clear, and the corneal wounds were united, and the conjunctival incisions cicatrizing.

From this date the improvement was uniform. She was given at intervals iron, quinia, strychnia and fl. ex. jaborandi, and, locally, eserine, as well as the bichloride and the biniodide of mercury.

February 16, 1879, the patient was discharged to return to her home. Then $VR =$ qualitative perception of light only, and $VL = .33$ with the aid of a +3Ds glass. The pupils were largely dilated, but regular. The media were not perfectly clear.

The margins of the right disc were uniform, but obscured and unpigmented.

The disc looked slightly white and lacked blood, and there was atrophic cupping of this papilla. The retinal arteries and veins were abnormally small, and no atrophy or pigmentation of the retina was detectable.

In the left eye there was cupping of the disc of the glaucomatous form. Still the vessels could be seen throughout their course on the papilla. The arteries on the disc were normal in size, but the veins slightly large. The color of the papilla was good, and its margins were irregular and pigmented at points. The media of this eye were clear.

On the fifth of July, 1879, with $-1.75 D 3$ spheric $VL = 20$. The discs were more marked in their outlines, and retinal arteries larger in the left eye, which latter is improving generally.

SEGMENTAL FEATURE OF GLAUCOMA

On the third of October following VR = counting fingers and seeing large objects indistinctly with or without glasses. At the same date — VL, unaided, = 13 and with + D3, spheric V = 50. The range of vision in this eye was 22 to 50 cm. The field of vision L E is reduced at the periphery, but least impaired in the upper region of the field, and is more largely dilated and the media are clear in each eye. The right disc is blue white, with shallow pathological cupping in its area generally, but there is a slight glaucomatous excavation at its lower margin. At its outer margin are pigment deposits. Its margins are defined, but not sharply. Its nerve vessels are very sparse, and its external vascular zone wanting. Its retinal vessels (on the disc) are distinct (excepting at the lower margin where they are curved) but slightly paler and abnormally small. The arteries of the retina are smaller than normal and somewhat veiled in its stroma. The larger vessels have the light, longitudinal streak. The stroma in and about the macula is indistinct as well as that of the retina blurred, and at several points the vessels do not stand out boldly. The disc of the left eye at its entire margin presents the glaucomatous aspect, a white color at its central area, but the red outer annulus is seen and several optic nerve vessels. Its margins are distinct and there is deposited newly formed pigment generally at its edges. The retinal arteries are lost at its margins to appear again on the expanse of the papilla, but above they can be seen curving in all that region of the disc. The retinal vessels are slightly smaller and lighter in color than normal. The stroma of the retina appears thinner at the periphery, where the choroidal vessels are seen, but the details of the fundus are not seen with perfect distinctness, but more plainly than in the right eye. The retinal arteries are fewer in number in the region about the macula, but those delicate branches present run well up to this spot. In the center of the field the vessels are more distinct, but at the periphery fundus they are slightly veiled.

There are no posterior synechia but at one point and that is pigment deposited on the anterior capsule of the lens of the left eye. The papillary border is distinct and is regular in curvature.

June 15, 1882.—On examining the eyes to day, the right eye shows the following details. Atrophy at outside of disc, grey atrophy at the upper and outer quadrant, vessels absent on the outer half of disc, cupping of disc, marked on outer side, and most in upper and outer quadrant, arteries on inside of disc very fine and extend over on retina by several branches.

There is well marked curving of the vessels at the inner and lower parts of disc, only one small vessel, a vein, below on retina, the macula obscured by plastic deposits. The disc is white, except in the upper and outer quadrant it is gray. Can see more light with this eye than formerly. State of L E. The macula is free from disease, the artery just above it is somewhat obscured, the vessels are incurvated

on disc, veins and arteries smaller than normal, but larger than when last examined, at the lower and outer quadrant of disc, there is gray atrophy, with distinct irregular pigmented borders and steep sides, the upper and outer margins of disc pigmented and too well defined.

There is some cupping of both discs, though this is not so marked as when last seen. The pupils are still dilated. In the left eye the entire disc is white, save in the lower and outer quadrant it is gray. The entire margin of this disc is pigmented. VL = 50, with + D 35.

Remarks—The most profound effects of this disease in the right eye were at the upper and outer quadrant, and in the left eye in the lower and outer quadrant, the temporal regions were next most invaded in each eye, and the nasal regions were least affected. The periphery, however, of the fundus was generally involved in either eye, a well known diagnostic sign of choroidal disease, especially when the iris was affected, as in this case.

A careful survey of this case, and the appended field charts for light and the primary colors, will, we think, lead to the conclusion that the effects of disease observed in either eye denote the presence of a general as well as a "segmental" influence of some form.

The ultimate results in the right eye are atrophy of the retinal structures, the force of the diseased process falling upon the retina as well as upon the choroid, and extending to the centers of the fundus in those membranes and to the papilla. Retino-choroiditis is the typical lesion in this eye.

In the left eye the glaucomatous element is more manifest, the inflammation here ending in atrophy of the periphery of the retina, thus limiting the field of vision, and affecting the macula and central region of the retina less, and permitting comparatively fair central vision in this eye.

In the other (right) eye the impress of the disease was greatest at the center of the field, and impaired most central and scarcely less peripheral vision.

The vision failed suddenly and during the night, and the attack began promptly after subjection to the influence of exciting causes, though it is evident that the predisposing cause—over-use of eyes—was in operation for weeks, which latter was aided in its effects by the delicate nervous and somewhat feeble organization of the patient.

There were no uterine complications in the case. Looking at the different pathological results in each eye, the more central lesions in the right, and the more peripheral in the left, another segmental feature is observed.

Again the "segmental feature" is seen in the limited points of gray atrophy shown on each disc, and in the marked impress of the disease, in certain regions and quadrants of the eyes. The outer half of each fundus suffered most, and it is to be noticed that the great bulk of the ciliary nerves and vessels reach the fundus from this side of the eye-ball.

It does not necessarily follow that because these lesions are situated in the main track of the vessels and nerves of the eye, that the morbid process orig-

inated either within or without the eye-ball in blood-vessels or nerves, for it has been already shown that blood-vessels have an intimate relation with inflammatory processes, and of such a nature as to account for morbid processes spreading in the line of these supplies, and yet not themselves the prime factors of the disease.

The doctrine of Cohnheim has been generally abandoned, and the focus of inflammation transferred to the tissues, by such authority as S. Stricker and Spina. In relation to the nerves, these authorities hold that "disease of the vaso-motor centers is certainly adapted to provoke pathological disturbances in peripheral organs, i. e., in the region of distribution of the affected nerves."¹

It is evident, however, that the lesions must be found at the "nervous centers" in order to constitute them a cause of the reflected affection, and it may well be inquired, Have such been observed in the NERVE "centers" in cases of glaucoma?

Is it not true that the lesions in this disease have invariably been found in the eye?

While not attempting to determine the nature of glaucoma, one may be permitted to consider this important subject in reporting a case of this disease.

In looking at the varied symptoms of glaucoma, one is struck with the uniform location of lesions in the eye. Pain may or may not be present in this affection.

Authorities assert that even increased tension is not always observed in simple glaucoma.

So, too, cupping of the optic nerve is not always found in this affection. Again, the cornea may or may not be sensitive, and it is true that individual portions of this membrane may be anaesthetic, and the remainder sensitive. The external appearance of the eye may seem healthy, the media clear, the iris normal or but little congested, and the pupil be dilated scarcely at all. The course of the disease may be so insidious in one eye as to be unsuspected, if the sight of the other is perfect.

Our case presents the lesions of plastic inflammation. It is true that the earlier iridectomy is performed, the less are structural lesions observed (as a general rule in this disease), and the more perfect the cure. Why? Because it is held by not a few authorities that, in the earlier stages of acute glaucoma the inflammation is of the serous character. In the chronic forms of the disease, however, lesions of nutrition give character to the affection, and such as was found in our case.

It would seem improbable that this affection can be traced to reflex irritation, because the local effects (reflected) are so uniformly confined to particular regions of the eye, and no constant relevant lesions are found, so far as we are aware, in the medulla oblongata or spine, or ganglionic centers, or at any point in nerve branches proceeding from these, whence such irritations have been reflected upon the eye, such as is seen in disease of the ganglia of the posterior roots of the spinal nerves in herpes.

It would seem, then, that one must look to the

eye itself as the point of origin of the morbid process in glaucoma.

In our case the cupping of the discs probably came late, and grew more distinct afterwards and subsequent to iridectomy, a result of tissue metamorphosis.

There was, too, in our example, iritis, shown by the presence of pigment on the anterior lens-capsule and the rigid and dilated state of the iris in each eye, as well as by the earlier irregularity in the pupillary margins. The disease seems to have spread from the periphery along the uveal track, involving the iris, and leading to atrophy of the pigment layer of the choroid at its periphery. The profound loss of vision in the right eye leads to the conclusion that the choroiditis extended to, involved and impaired the layer of rods and cones of the retina, and, finally, the lesions in and about the right disk show that the diseased process extended throughout the pigmental layer of the choroid and involving the precipient layer of the retina, and to some extent, the layer of nerve fibers in certain segments of the fundus, extended also to the structures constituting the optic disk itself, and practically abolished vision in this eye.

The tension of the eyes, in this case, was not increased in a marked manner, never rising above +1 in either eye. After the iridectomy, and when the pain had subsided, it became normal and remained so, yet it will be observed, that although the tension was equal in each eye, structural lesions were much greater in the right than in the left eye, which is against the pressure theory as a cause of glaucoma.

The advancement of the lens in this case was not extreme, nor was the anterior chamber reduced greatly in size, which facts, associated with the presence of such metamorphic changes, as developed in the eyes of this patient, are not in favor of the pressure theory as a cause of this disease.

We may again refer to the reflex theory as a cause of glaucoma. It has been claimed that this may be true in this disease, because there is a class of paralysis due to reflex irritations, as, for instance, reflex paraplegia due to disease of the kidneys, and also that diseases of the nerve centers (previously referred to) may induce paralysis and structural lesions of distal parts, as in infantile paralysis.

This may be answered by the inquiry, has it been shown that such lesions do exist, in those afflicted with glaucoma, in the nerves or nerve centers? and further, why is it that these glaucomatous eyes so constantly receive the morbid impress if there is not a diseased entity seated in the eye itself? Why does the eye so generally react upon itself, if it is not primarily at fault in this affection? Why invoke the aid of another organ to account for the phenomenon unless compelled to do so?

Can we not learn a lesson in this connection, from Stricker, in his recently developed views of the nature of inflammation? If he has so clearly shown that the prime feature of inflammation, is tissue metamorphosis—of cells, and basis substance—into the morbid cells, and a return to the embryonic state of parts involved, and that the microphages

¹ The International Encycl. Surg. vol. 1, p. 60.

but attendants of the inflammatory process—that the caliber of the blood-vessels is simply regulated by vaso-motor influence, and if we have before us the recognized results of such tissue changes in eyes subject to glaucoma, why may we not admit that the disease is inflammatory in nature, if thus we can account for the phenomena in such cases?

Why seek to cast the failure upon obstructed outlets, when in this affection, these are not always closed? Why make pain, or its effects, a primary factor when it is not always present? Why elevate tension to a prominence above that which causes the tension?

Are we not well taught that glaucoma is but an epiphenomenon, that it is not a unit, and that it is but an array of symptoms based upon a pathological element

At the risk of repetition, we quote from Stricker¹, whose words are so much more forcible than anything we can say “This fact of the common course of sensory and vaso-dilator nerves is finally suited to explain the connection between local inflammatory irritation on the one hand, and the inflammatory hyperæmia and pain which accompany the process on the other

It was formerly supposed that the inflammatory irritation, inasmuch as it implicated the sensory nerves, caused pain by means of their centripetal conduction, and at the same time excited reflex action. Accordingly, it was said, inflammatory hyperæmia is produced by reflex action. But this assumption had no solid foundation. If every inflammatory irritation must first be conducted to the central nervous system, in order to produce hyperæmia (by reflex action) I can not see why this hyperæmia appears just where the irritation acts. If powerful irritation produces reflex action, the reflex movements are not confined to the seat of the irritation. But inflammatory hyperæmia always appears at the seat of irritation only. *Ubi stimulus ibi affluxus* is the old rule, which holds good for weak as well as powerful inflammatory irritation

It is therefore probable, that inflammatory hyperæmia is a direct local consequence of the local irritation. It is probable that the local irritation exists at the same time, in both the sensory nerves and the vaso-dilators of the implicated region. Whilst the former cause pain by means of centripital conduction, the latter produces a dilation of the results by means of centrifugal conduction.”

At page 60 of the same work, this authority continues “Positive and unequivocal proof that the growth and nutrition of tissues in general are influenced by the central nervous system, has, however, not as yet been furnished. We are, it is true, acquainted with affections of tissues which are due to diseases of the central nervous system, such as acute bed-sores in certain severe central diseases, and progressive muscular atrophy in connection with diseases of the ganglia in the anterior horns of the spinal cord (Lockhart, Clarke, Charcot). Recently, Ad Jarisch has discovered a very important relation between diseases of the skin, and diseases of the spinal cord,

likewise in the region of the anterior horns, the affection in one instance was a case of herpes iris, and in another, a case of pemphigus, though in this, the relationship was less pronounced. I have carefully examined the specimens in question. The disease of the anterior horns of the spinal cord was quite evident. These data, it appears to me, are very important for pathology. But whether we have to deal with centers which directly influence the tissues—that is, with the so-called trophic nerves—or with vaso-motor centers, is not known. Disease of the vaso-motor centers is certainly adapted to provoke pathological disturbances in peripheral organs, *i. e.*, in the region of distribution of the affected nerves.” Thus it will be seen, that this able authority admits that diseases of the central nervous system may provoke peripheral diseases by reflex influence through nerves. Yet it is quite evident, that he maintains that such can only be provoked when there are found structural lesions of the nerve centers themselves.

If, therefore, no lesion of such centers are found in glaucoma, he would not, in consonance with his doctrines, attribute this affection to any influence reflected from the nervous centers to the eye. If, then, Mauthner and Stricker do not disagree, why may we not admit that the so styled glaucoma is, essentially, an inflammation?

Finally, may we not conclude, that so long as the causes inducing the segmental feature of this disease are distinct from the phenomena induced in living blood-vessels and nerves, that, like parallel lines, never approaching, they are distinct in nature, yet related, and that blood-vessels and nerves are but subsidiary to the life and growth of organic cells and basis-substance, and that so long as these latter are intact, inflammation cannot be said to exist.

We may add, that we saw this patient May 6, 1883, and her vision with a + D 1 75 = 50, which is an improvement, because she requires a weaker convex glass to read than at the last examination (+ D 3 0) then, now D 1 75

ZANESVILLE, OHIO, May 9, 1883

DISCUSSION

Dr Frothingham thought that the changes in the eye were of a cellular character, as shown by the two papers just read.

Dr Lundy said that in many cases of inflammatory diseases we meet with distension of the eye-ball, more or less permanent, without it being glaucoma, and on the other hand there were cases of glaucoma without distention of the eye-ball.

Dr Howe, of Buffalo, said that each such contribution to our knowledge of cataract only showed how much remained to be discovered in regard to its etiology. He mentioned a case of soft cataract in which the lenses were apparently exactly in the same condition, and yet under a similar operation the behavior was entirely different in the two. Reference was also made to experiments upon rabbits, in these animals there being a decided tendency to repair after injury of the capsule. With them considerable opacities of the lens will sometimes clear up, so as to leave only a slight cicatrix.

¹ The Inter Sys Surg Ashhurst, Vol I p 28

ON THE ELEMENTS OF PROGNOSIS AND OF THERAPEUSIS IN TUBERCULOSIS OF THE LARYNX.

BY J SOLIS COHEN, M D, OF PHILADELPHIA

(Read to the Section on Ophthalmology, Otolaryngology and Laryngology
June 1883)

While acknowledging the stern truth that the prognosis is always bad in tuberculosis of the larynx, it may be maintained that the prognosis is less unfavorable in certain groups of cases than in others, and that systematic therapeutic measures are capable of doing much more good in such cases than is generally admitted, even to the establishment of reparative processes in occasional instances.

A case mentioned in the edition of 1879 of a treatise by myself on Diseases of the Throat and Nasal Passages, as having lived more than eight years after the re-establishment of comparative health, is still alive and doing well, and several others that have been under my observation have recovered so far as to resume their occupations, and maintain a tolerable degree of health, and of enjoyment of their impaired lives.

The proportion of such recoveries is exceedingly small, less than one per centum, but the very fact of occasional recovery under treatment affords sufficient satisfaction to indulge the anticipation of considerable increase, as the elements of prognosis are more accurately ascertained and the institution of appropriate remedial agencies more thoroughly determined.

The probable hold upon existence, in cases of tuberculosis of the larynx, or the period to which the probable death of the patient may be protracted, are important subjects to the domestic circle in any individual instance, and any investigation is valuable which may throw light upon this important point in prognosis.

In collating the cases which have occurred in my own practice, I am appreciating the fact that there are certain objective indications, which, studied out and compared with future observations to the same purport, will aid us in estimating the length of days remaining at the disposal of the sufferer, and in prolonging the remnant of his existence by judicious therapeutic measures.

Acute tuberculosis of the larynx is almost certain to terminate fatally at a period varying from six weeks to six months. Some cases terminate still more rapidly, others linger a few weeks or months longer. Recovery is so rare that the accuracy of diagnosis may be fairly questioned in the few instances on record, especially in the face of the fact that the aspect of the disease and its immediate ravages bear very close physical similitude to the progress of acute latent, and tertiary syphilis. So close is this resemblance in many instances, that the test of anti-syphilitic medication must be applied before a positive opinion can be pronounced as to the tuberculous or syphilitic character of the case.

Previous to the discrimination of acute tuberculosis of the larynx these cases were regarded as syphilitic, and the failures to cure it were attributed to the profound dyscrasia under which the patient labored. Hence the comparatively recent addition to nomen-

clature of acute tuberculosis of the larynx. Acute tuberculosis of the larynx is usually indicated by acute laryngitis following exposure to cold and wet, in which deglutition first becomes difficult and subsequently very painful. Intense pain in swallowing is often the only marked characteristic subjective symptom. Swelling of the epiglottis, with progressive ulceration from one or both sides, as revealed by laryngoscopic inspection, account both for the difficulty and pain in deglutition. Pulmonary symptoms of tuberculosis are evident on careful physical exploration of the chest, and serve to confirm the diagnosis of the disease, which steadily progresses as acute tuberculosis, and terminates fatally, as has been mentioned, at a period extending from six weeks to six months, secondary tuberculosis having taken place meanwhile in other organs adjacent and at a distance.

Painful deglutition, therefore, supervening upon an attack of acute laryngitis, and due to tumefaction and ulceration of the epiglottis, and of the fold of tissue uniting the epiglottis to the pharynx, is indicative of acute tuberculosis, with rapidly fatal termination.

The local use of morphia by insufflation, or of morphia and iodoform in powder, presents the most efficient means available of diminishing the pain on deglutition. Before the sedative powder is blown upon the parts they should be thoroughly cleansed by an alkaline douche or spray, to enable the medicinal agent to be applied to the diseased surface, instead of being merely commingled with the secretions which cover it. The solution used most frequently for this purpose in my own practice, consists of five grains of borate of sodium, one drachm of glycerine, and seven drachms of tar water.

Far more frequent than acute tuberculosis of the larynx is the chronic form of the disease, of which we may differentiate several varieties of progressively protracted duration.

The shortest of these varieties becomes engrafted, so to speak, upon that variety of pulmonary tuberculosis characterized by rapid caseation of the pneumonic foci. It occurs early in the malady, coincidently, perhaps, with the giving way of the pulmonary tissue, and runs its course to a fatal termination in from six to eighteen months.

It may be regarded as a subacute tuberculosis of the larynx, or as florid chronic tuberculosis. It is a secondary tuberculosis in the true sense of the term, although the subjective and objective laryngeal symptoms may precede those of the lung disease.

It is indicated by congestive catarrhal laryngitis, associated with localized or catarrhal pneumonia, and followed by multiple minute ulcerations of the laryngeal mucous membrane. These ulcerations take place most frequently upon the posterior or lower face of the upper or free portion of the epiglottis, but they occur upon other localities also. These ulcerations extend in depth and in periphery, and coalesce when contiguous. Intumescence of the epiglottis gradually supervenes, followed frequently by intumescence of the ventricular bands and of the vocal bands. Similar intumescence takes place in the epiglottic folds.

iously encroached upon by these tumefactions, that considerable dyspnoea ensues

Meanwhile existing ulcerations extend, and new ulcerations occur and extend likewise, until in some instances the internal surface of the larynx is almost surrounded by irregular zones of tissue losses, rendering its aspect exceedingly ragged. Fungous granulations rise above the surface of some of these ulcerations, in many cases still further impeding respiration, and interfering with expectoration of the various products of hypersecretion and ulceration. The destructions of tissue, tuberculous and suppurative continue progressively throughout, involving all the component structures including cartilage, portions of which become detached, and become partially expectorated in detritus, fragments, or in masses. The destruction of the epiglottis takes place from above downward as the rule, but occasionally laterally, as in the acute variety proper. Secondary tuberculosis takes place in other organs, adjacent and at a distance.

The differential indication of this form of tuberculosis, in which the tenure of life may be estimated at from six to eighteen months, according to the activity of the process, and the existing pulmonary complication, is to be recognized by the initial multiple minute ulcerations upon the epiglottis, particularly, in the early stages, and the subsequent tumefactions at the anterior portion of the larynx, followed by progressive extensive ulcerations, tuberculous and suppurative. Ulceration limited to the epiglottis indicates much more rapid progress to the fatal issue. Impairment of voice, dyspnoea, and later in the case dysphagia and painful deglutition, are the most characteristic subjective local symptoms.

Much more relief can be afforded by treatment in these cases than in the acute variety previously described. The constitutional treatment required is that adapted to tuberculosis of the lungs, irrespective of the laryngeal complication. Locally, much can be done to afford comfort by keeping the parts as cleansed as possible from products of secretion and ulceration, by alkaline sprays propelled upon the parts at regular intervals. For this purpose the solution of borax in tar water, previously mentioned, may be employed by the patient several times a day, a few drops of the sedative solution of opium being added to relieve pain and repress cough. Inhalations of terebinthinate, creosote or carbolic acid, in spray or in vapor, to follow the cleansing process, are beneficial both for antiseptic and for astringent and slightly stimulating purposes. Insufflations of powdered iodoform propelled directly upon the parts after previous cleansing, are grateful and soothing. The disagreeable odor of iodoform can be tolerably well masked by the addition of a minim of attar of rose to the drachm, or five or more minims of essence of rose geranium.

Harrassing cough from the local irritation of the ragged mucous membrane and the secretions adhering to it, can be much diminished by wearing a light respirator of perforated zinc, or of buckram, or some similar contrivance, in front of which a small fragment of sponge can be confined, upon which five or

more minims of terebene, oil of turpentine, creosote carbolic acid, or eucalyptol may be dropped from time to time, as it evaporates, with the occasional addition of a rather smaller amount of chloroform.

In the earlier stages of dysphagia the preliminary deglutition of a teaspoonful of sweet oil often facilitates the immediate deglutition of nourishment, by coating the parts with protective fluid and by lessening the friction. When extensive ulceration prevents this relief, the best reliance is upon morphia, as in the acute variety.

The more chronic varieties of laryngeal tuberculosis occur in the more torpid cases of pulmonary tuberculosis beginning in localized pneumonias. The larynx does not become involved until the disease has considerably advanced in the lung, and softening is imminent, or is already in progress. These cases last from two to four years on the average, and sometimes much longer.

Pallor of the mucous membrane is perhaps the earliest marked characteristic of this variety. The participation of the larynx is passive, so to speak, rather than active, and the tuberculous process is much slower in its manifestation and its progress.

Little by little the component structures of the borders and interior of the larynx lose their marked outlines and become more and more tumid. The sharp edges of the aryteno epiglottic folds and other tissues become thickened and rounded off, while circumscribed tumefactions of much more marked character take place at different points literally supplied with normal lymphoid cells.

The supra-arytenoid cartilages and the aryteno-epiglottic folds undergo this tumefaction much more frequently than any other tissue. The epiglottis and the interarytenoid fold are two other prominent points for the process.

The sharp and peculiar outlines of the supra-arytenoid cartilages become transformed into characteristic globose tumors tapering off pear-shaped-like into the aryteno-epiglottic folds, with gradual obliteration of all the lines of demarcation between the folds and the contained cartilages, a transformation so characteristic as to be almost sufficient in itself to indicate pulmonary tuberculosis, aside from investigation of the chest.

In the inter-arytenoid fold a tumid projection gradually develops, sometimes condylomatous, more rarely acuminate, which prevents approximation of the posterior portions of the vocal bands, and thus entails aphonia or great impairment of voice.

The epiglottis increases in thickness to several times its normal dimensions, fails to occlude the larynx in deglutition and incites great care in swallowing, lest particles enter the air-tube.

The tumefaction in the epiglottis and aryteno-epiglottic folds is sometimes increased by collateral oedema, which may be so great as to produce veritable stenosis, threatening asphyxia.

These cases are slow in progress as a rule, unless the patient be the subject of marked cachexia, when the destructive process may ensue as rapidly as in the slower cases of the subacute variety. The tumefactions may remain the only visible objective indica-

tions during the entire malady, but in advanced stages ulcerations are liable to ensue as in the other varieties, and not only at the points mentioned but in other parts of the structures

Pallor of the mucous membrane of the larynx of a phthisical subject, followed by the circumscribed tumefactions just alluded to, form the chief indications of the slower variety of tuberculosis of the larynx in which the prognosis of a more prolonged existence may be given

The tardy progress of the morbid process affords better opportunity for beneficial results from therapeutic measures, and their judicious selection at an early period in the disease may not only prolong the life of the patient, but even start him on the road to recovery

The pallor of the mucous membrane of the larynx, evident as it often is before anæmia is recognized elsewhere, indicates the advisability of the administration of meat as food and iron as medicine. A meat diet requires more or less exercise in the open air, or its substitute. Inhalations of compressed air by some of the methods now in vogue, massage of the limbs, and similar methods promote oxidation of the products of meat digestion, and thus invigorate the patient. Enrichment of the blood by the meat may be supplemented by the administration of iron. Tincture of the chloride of iron in ten minim doses, with fifteen minims of dilute phosphoric acid and a teaspoonful of the best syrup of the hypophosphites, preferably of lime in most cases, if that is at his command, is the prescription most relied upon by myself, given after meals in a tablespoonful of water.

The tumefactions are well painted every two or three days with equal parts of the compound solution of iodine and glycerine, or with a few drops of solution of iodine and of carbolic acid to the ounce, and the parts kept free as possible from secretory products by the alkaline spray already mentioned.

When ulceration takes place, antiseptics are added to the treatment locally and by inhalation.

Compressed air, alkaline sprays, iodine locally, iron internally, animal diet, and as free exposure to the air as practicable, constitute the therapeutic measures which have been followed by the best results in my own hands, and by these means modified or supplemented, as occasion may indicate, with such general measures, hygienic and remedial, as are indicated from time to time, I have reason to believe that the course of certain forms of tuberculosis of the larynx may be retarded in occasional instances to such an extent as to give the patient a chance to recover.

QUESTIONS ON THE ETIOLOGY OF SOME FORMS OF LENTICULAR OPACITY

BY J. L. THOMPSON, INDIANAPOLIS

[Presented to the Section on Ophthalmology, Otology and Laryngology, June 1883.]

In looking over my records of cases for a number of years back, affections of the crystalline lens are found to sustain a relation of 9 per cent, and of these, a very large majority are opacities, idiopathic, and

traumatic, mostly the former. In these I have been very much struck by the very large number which have taken place below, as compared with the upper peripheral portion of the lens, and still more surprised at seeing the opacity so often at the lower-inner margin. On first meeting with these, my practice was to inform those who were so affected that they had commencing cataracts, and I usually requested them to call on me from year to year that I might watch their progress toward ripeness, but after observing them for a number of years and seeing no increase in their extent, I soon became more guarded in prognosis and, indeed, began to ask myself whether or not some of them were congenital and similar to the arcus senilis (a very wrong term of course for congenital cases). But remembering that though I had frequently seen the gerontoxon in persons of all ages, in the youthful just as well as in the aged, yet the peculiar opacity of which I speak rarely ever came under my notice in persons under forty, so it seemed to be a senile change. I was still more convinced of this by witnessing a case almost at its very inception in a lady eighty years of age, whose eye I had examined several times before the opacity made its appearance. She first came to consult me on account of dimness of vision which she feared was caused by cataract, indeed she was morbidly sensitive on the subject of cataract. I examined her under a mydriatic and found each lens perfectly clear (or as clear as one ever finds it in an elderly person), with not the least trace of opacity in either. Her dimness of vision being the result of myopia, with hyperæmia of the choroid and retina. I informed her of these facts, and in answer to her questions upon the subject, told her that in all human probability she would never be troubled with cataract. In just one year from that date she again called upon me, when an opacity was readily seen in each lens downwards and inwards, greater in the left than in the right eye. I saw her once or twice a year until she died, always comparing her condition with the pencil sketch taken when she was first examined, and there never was a particle of increase in the breadth or depth of the stippling. All through my case book are these opacities to be seen, and the uniformity of their position viz at the lower inner margin of the lens is very striking. It certainly must be more than simple coincidence that so many of these cases should have occurred in my patients, and yet in conversing with many of my acquaintance who practice in this department of the field of medicine, they seem not to have had their attention called especially to this feature of it, nor do I remember having seen it mentioned in any of the eye literature which has fallen under my notice. 'Tis true one often reads of small opacities forming a circle around the periphery of the lens in elderly persons, which Dr. De Wecker looks upon as being "clearly connected with the movements of shrinkage in the nucleus, and an accompanying separation of the fibers in the portion corresponding to the opaque ring, while the rest of the lens has undergone no appreciable change." In such cases the upper portions are the lower, and

and my books show (I keep a pencil sketch of all intraocular affections) these opacities occur at least twenty times in the lower, to one in the upper, and ten times in the lower inner to one in the lower outer portion. Occasionally one meets with them in both inner and outer lower portions of the same lens, but the inner are invariably more pronounced than are the outer, another remarkable peculiarity is, that they are often met with almost exactly alike in each eye.

Indeed these cases are so numerous that they often come to me in pairs, as my books show on several pages, but this is a coincidence which often takes place in the practice of us all. Many of these patients have I seen, from time to time, for years afterwards and they nearly all seemed to remain as when first examined. It is evident that they widely differ from the congenital gerontoxon which has, or seems to have the impression of the zonula upon it. That gravitation is an important factor in the position of these clouds there can be no doubt, and the fact of their sudden appearance and their remaining ever afterwards just as when first seen, shows that some temporary change in the nutrition of the tissues similar to those which follow rheumatic, gouty, and other inflammations which are often followed by degenerative deposits, must obtain in these cases also. Were they simply fatty degenerations of the fibrillæ of the lens, one would certainly meet with them as frequently in the upper as in the lower peripheral portions.

OPACITIES OCCURRING DURING CHOROIDAL INFLAMMATION

Doubtless all present can recall one or more cases of opacity of the lens occurring very suddenly during the treatment of choroido-hyalitis with floating bodies in the vitreous chamber. A typical case of this kind came under my notice in a Doctor E. aged 26, single, who consulted me some years ago on account of the above named floating bodies in the vitreous humor of the left eye, which he informed me had existed about four years. When I first examined him the eye was so filled with these floating bodies as to render the fundus very indistinct in some places, and totally so in others, thereby reducing vision to 2. He said that since he first discovered them he had been better and worse, that occasionally they would partially disappear, and the vision would slightly improve, but that they never left entirely, nor did vision ever reach the normal acuity. The right never participated in this abnormal process, it being entirely confined to the left eye. His health, he said, had always been good, that he never, so far as he was aware, had been troubled with any form of heart disease, and was confident that he never had syphilis. He looked delicate, tired and under-tone, but he had been taking large doses of iodide of potassium, which may have caused this appearance. I placed him on the use of jaborandi, used artificial heat and counter-irritation occasionally, but without good effect. He called on me very often, but the eye remained apparently about the same, until on one occasion the anterior chamber was found to be so shallow that the iris rested against the cornea. Prior to this time the lens had been as clear as one ever sees it, but in five

days' time it became thoroughly opaque throughout its whole extent. For a period of nine months he had no visible anterior chamber, but at the end of that time it was re-established, and the tension, which was formerly — 1 became normal. At this date his field of vision is good, he sees one's hand between him and the light, and were one examining him as to his prospects for a cataract extraction without having a thorough history of his former condition it would be pronounced a very promising case.

A very similar one to the above occurred in a patient aged 50, who consulted me for a dimness of vision which I found to be from choroido-hyalitis with floating bodies in the vitreous. "Is it catharack, docthur?" was the question. "No," and I took great pains to convince him that it was nothing like cataract. Again in two weeks did he call, with the same question, with his eye in the same condition, but in one week more he had a well-pronounced opacity of the lens, which on former examinations was as clear as ever it is seen. "And do you tell me that it isn't catharack?" was the first question with which he greeted me, he having been to another physician in the interval of his visits to me. What could I say to an ignorant patient under the circumstances? Such cases are exceedingly trying, as well as interesting. What a help it would be to one did he know something more concerning their etiology, that he might know just when and in what cases to predict them. Many, with choroidal troubles similar in all appearance to the above, will go on for years, becoming better and worse until vision equals simple perception of light and yet the lens will remain clear, while in others apparently no worse nor even so severe, cataract will be developed almost at the very inception of the malady. In all probability these cases of former choroidal inflammation often cause our smoothest and best performed cataract operations to result disastrously. Diabetes, again, is a well-known cause of rapid opacity of the crystalline. Several cases have come under my care in which the person has been able to read the newspaper readily ten days before the date of his coming and yet an examination has revealed the fact of a completely opaque lens in each eye. Other cases, again, often go on for years with urine of the same specific gravity, and all other conditions apparently similar, and yet no sign of lenticular opacity ever takes place.

OPACITIES FOLLOWING OPERATIONS AND WOUNDS

How common it is to meet with an opacity of the lens very soon after an operation for artificial pupil in cases of complete synechia posterior. The lens remains clear for some time after the operation, except a few spots of pigment remaining where the iris was formerly adherent, but in a few weeks cataract is made manifest, so it is often after an iridectomy for glaucoma, where we are positive that neither knife nor forceps ever touched the lens capsule. The question arises, in what way or manner does the operation so interfere with the nutrition of the lens as to cause its rapid degeneration in one case, while in ninety-nine other similar ones no such result follows an apparently identical operation?

Opacities resulting from foreign bodies entering

into or passing through the lens are, as you are all aware, by no means infrequent. In a few of these the opaque spot has remained partial—sometimes even it becomes smaller—years afterward than just after the wound. Especially is this so where a very fine body jams through into the vitreous with great force, while wounds from pins, or bodies, be they never so small, which have been passed only just through the anterior capsule and been withdrawn are almost invariably followed by complete opacity sooner or later. The following unique case is, however, an exception. Chas Lutz, aged 22, residence Terre Haute, Ind., was sent to me by his physician on account of an injury to the right eye by a piece of percussion cap three days before. On examination I found that it had passed through the lower part of the cornea and iris into or through the lens, the last named body being quite opaque throughout—at least its lower two-thirds.

As he could not remain under my care I wrote to his physician, suggesting ice, atropine, and leeches if the inflammation ran high, and requested that he be sent down if much pain and tenderness in ciliary region became manifest. I heard that he was doing well two months subsequently, and did not again hear from him until I met with Dr J P Farrell, of Terre Haute, about three weeks ago who informed me of the following very remarkable behavior of the case. When the doctor returned to Terre Haute from Europe the patient immediately called upon him, when a projection of the iris was visible, looking as if a body was lodged behind it. Again, in a few weeks, some kind of a foreign body was seen in the lower part of the aqueous chamber. Again in a few weeks, it was seen in the tissue of the cornea, and, lastly, the young man accosted the doctor on the street to inform him that he had the foreign body at home, he having picked it from the eye. At my request Dr Farrell kindly wrote me the following letter on June the 1st inst.

"* * * I found the eye quiet, presenting a ring-shaped, or, rather, semicircular white opacity at the lower and inner quadrant of the cornea. In the space included between this semi circle and the corneal border there is a dark point evidently due to adhesion of iris to inner corneal surface. Pupil eccentric and pear-shaped, due to ant synechia. Lens clear, with the exception of the slight degree of opacity along a cicatricial line which is seen in the ant capsule $V = \frac{1}{2}$. The eye is entirely quiet and has given him no trouble, though actively engaged at his work, that of a nail-feeder, which requires close attention.

"The foreign body, I may add, is about 2 mm square, being of the thickness of good writing paper. Further, I wish to say, that running from the situation of the cicatrix on the capsule, to the point of union of the synechia to the cornea, is a white band to which the lacerated iris is attached. This band I once thought was the lens capsule, but yesterday I came to the conclusion that it is not.

"Signed, J P FARRELL."

The above questions have been of deep interest to me, and doubtless similar ones have often agitated

the minds of many others, and, as no better opportunity will ever offer for an interchange of views and the relating of personal experiences upon the above questions, I therefore give it as my reason for bringing the subject before you on this occasion.

DISCUSSION

Dr Noyes, of New York, said he had seen similar cases quite frequently, and had them divided into two classes—those accompanying myopia and being of a molecular form, and those in which the opacity is striated and caused by choroidal retinitis. He thought the opacity was due to impaired nutrition of the hexagonal epithelium, and that it required years for its development.

Dr Frothingham said that the paper was the result of carefully kept records, and if every one would take the trouble to keep such records, many points about which we are still in the dark might thereby be cleared up.

Dr Thompson, in closing the discussion, said that he had nothing further to add except that he had found his records of cases of great advantage to him.

THE ACTION OF NITRATE OF SILVER UPON THE MUCOUS MEMBRANE OF THE THROAT AND NOSE

BY CARL SEILER, M.D., OF PHILADELPHIA

[Read to the Section on Ophthalmology, Otology, and Laryngology.]

It is not my intention to present an exhaustive essay to the Section, but simply to make a few remarks concerning the action of the silver salt upon the mucous membrane, and to record some observations made by myself, with the hope of giving rise to a discussion on this interesting subject.

We are all familiar with the popular notion that nitrate of silver is a caustic, and is held in abhorrence by the patients, and used sparingly and in weak solutions by the physician in dealing with inflammations of the mucous membrane of the throat and nose. It may, therefore, be startling to you when I make the statement, the conclusion arrived at from clinical experience and microscopical examination of the tissue, that nitrate of silver, solid or in solution, is not a caustic—it does not destroy the epithelial covering, and its action is different with the strength of solution used. The action of the solid stick or super saturated solution upon the undenuded mucous membrane is first a combination of part of the silver with the albumen, mucine, and chlorides contained in the secretion of the immediate neighborhood of the spot touched, and the formation of a thick, tenacious, yellowish white pellicle adhering tightly to the epithelial covering. The surplus of silver which is not thus converted penetrates the interstices of the epithelium and becoming reduced to the oxide of silver or deposited as very fine granules of oxide of silver which act as foreign bodies and give rise to congestion and inflammation in their immediate neighborhood. It continues with more or less severity.

have become accustomed to the presence of the foreign body. The pellicle formed, although at first tightly adhered to the surface, soon becomes loosened as the increased blood supply hastens cell death, and is pushed off by the exfoliation of the upper layer of epithelial cells, leaving underneath it a healthy surface covered by epithelial cells. A section carried through the mucous membrane which has been acted upon by the stick or a super-saturated solution does not show any cell disintegration by the drug.

Clinically we observe that the solid stick or a super-saturated solution does not produce much pain on the healthy mucous membrane, but acts as a localized stimulant and, through the formation of the pellicle, as a protective. When applied, on the other hand, to a surface denuded of its epithelial covering the solid nitrate of silver, by combining with the albumen and protein of the granular cells, forms a similar pellicle as is seen on the healthy surface, but melts the upper layer of the cells. It thus again acts as a protective and local stimulant exciting healthy granulation and the reformation of the epithelial covering.

Experiments carried on with solutions of different strengths, such as 250, 200, 180, 120, 60, 40, 20, and 10 grs to the ounce of water, gave much the same results, when sections were made and examined under the microscope as were noted when the solid stick or a super-saturated solution was used, except that with the decreasing strength of solution, a decrease in the thickness and firmness of the pellicle, and a diminution in the number of granules of oxide of silver were noticed. The experiments were made on rabbits and dogs at the pathological laboratory of the University of Pennsylvania, and the silver salt was allowed to act upon the mucous membrane from 10 to 20 minutes, except in the case of the experiments with the solid nitrate of silver, when, in some instances, 62 and 24 hours were allowed to elapse before the animal was killed and the tissue prepared for section. The sections were made for me by my friend Mr. —, of the University.

The clinical observations with the different strengths of solution extend over a number of years, and were made on myself as well as a large number of patients, and may be summed up in a few words.

Solutions of from 250–120 grs strength act similarly to the solid stick—that is, little or no pain is felt on contact, a thick pellicle formed, and the localized inflammation is of short duration. Solutions from 120–60 grs produce no pain whatever, on the contrary, act as local anæsthetics. When applied to an inflamed surface they produce no perceptible localized inflammation, but stimulate glandular secretion. The pellicle formed is but slightly adhered, and can be pulled off after a few hours. They also act as powerful astringents, and frequently will cut short an acute inflammation of the mucous membrane when they are applied before inflammatory infiltration into the tissue has occurred—that is, within twenty-four hours from the onset of the inflammation.

Solutions of less than 60 grs produce the more pain the weaker they are, which is also more and

more lasting, so that the anæsthetic and astringent action diminish on an equal ratio with the strength of the solution, while the stimulant and irritant action increases as the solution becomes weaker. The protective quality of the pellicle, which, however, is formed even with a 10-gr solution, and which probably has given rise to the belief that the silver salt is a caustic by having been mistaken for an eschar, diminishes also with the strength of the solution. The glandular secretions are materially increased by these weak solutions. Thus it will be seen that nitrate of silver, like many other drugs, should not be used indiscriminately, but that the strength of the solution should be properly gauged by the action desired. For if we want an astringent, sedative and protective action, we should not use a solution of less than 60 grs, while, on the other hand, if we want a lasting stimulant and irritating action, the weaker solutions are indicated. Also if we want to increase the glandular secretion or want to induce absorption of old inflammatory deposits, the irritant action of the weak solutions is of great value. When a long continued irritating and stimulating action is desired such as is necessary in atrophic nasal catarrh, for instance, I have found that solid nitrate of silver, in fine powder highly diluted with starch powder, is preferable to a solution, since the fine granules of the silver salt in contact with the atrophic mucous membrane set up points of inflammation and increase blood supply all over the mucous membrane, thus stimulating the few remaining glands to increased action which in time becomes permanent.

Want of time and opportunity have prevented me from making observations on the action of the silver salt on the mucous membrane of the eye, but I have no doubt that the action is similar, if not the same except that on account of the large amount of chlorides in the secretion of the lacrymal gland a large proportion of the nitrate is at once converted into the inert and insoluble chloride of silver.

DISCUSSION

Dr. Jarvis fully agreed with Dr. Seiler's views, and Dr. Roe said he also had found, like the author of the paper, that a solution of from 60 to 120 grams to the 3j of water will almost invariably cut short an acute tonsillitis.

Dr. L. Turnbull said he had seen solid nitrate of silver produce sores upon the skin, and that he was in the habit of destroying polyps with the solid stick.

Dr. Conner, of Detroit, said that in the main he agreed with Dr. Seiler, but had seen a case in which serious sloughing of the tissues around the eye had followed the application of solid nitrate of silver. He thought a great deal depended upon the length of time that the drug was allowed to act upon the tissues. All other speakers agreed with Dr. Seiler, that nitrate of silver was a most valuable drug if properly used, but disagreed in regard to the non-caustic action of the solid stick.

Dr. Seiler, in closing the discussion, said that he could explain the production of sores and sloughs by nitrate of silver, which he had frequently seen. They were caused, not by the destruction of the epithelium,

but by the localized inflammation due to the irritant action of the granules of oxide of silver which are deposited in the dermal and subdermal tissue, thus hastening cell death and producing ulceration, as any other localized inflammation may do

FOUR CASES OF EYE DISEASE FOLLOWING BRAIN DISEASE

BY HENRY G. CORNWELL, M.D., COLUMBUS, O., PROFESSOR OF OPHTHALMOLOGY AND OTOTOLOGY IN STARLING MEDICAL COLLEGE

[Read in the Section on Ophthalmology, Otology and Laryngology June, 1883]

HEMIANOPSIA HOMONYMA DENTRALIS AFTER APOPLEXY

Mrs. S., aged 65, an intelligent lady of Columbus, was sent to me by Dr. Fullerton, her family physician, February 1, 1883, for advice concerning a defect of vision, which had made its appearance three months before. The previous history of her case is as follows:

Two years before she had an attack of apoplexy, was comatose for twelve hours, and remained hæmiplegic on the left side for nine months, improving gradually until she entirely recovered without sequelæ from her illness, and enjoyed good health for fourteen months. One month before I saw her she was about to call on some of her friends, and as she ascended the steps her vision became suddenly obscured, and on entering the house she observed that she could only see the left half of objects toward which her eyes were directed. Her mental faculties remained clear, and she was absolutely free from all other symptoms of intra-cranial disease. Her hemianopsia (it being right-sided) prevented her from reading, a thing which distressed her exceedingly. On examination I found central vision $\frac{20}{20}$, or normal. Entire absence of all visual impressions, except for light over the right half of the visual field, the line of demarcation being sharply defined and extending to the macula lutea. Visual and color sense normal over the left half. Ophthalmoscopic evidence negative. Her condition remains, after three months, unchanged.

My view of the pathological condition in this case is, that at the time of the sudden appearance of the hemianopsia the patient had a second hæmorrhage of slight extent, doubtless into the occipital lobe of the left hemisphere, the injury to the brain substance being only sufficient to produce the visual defect.

A CASE OF MONOCULAR OPTIC NEURITIS, FROM BRAIN DISEASE

J. H., æt 26, of Mt. Vernon, O., a machinist, single, visited me October 20, 1882, on account of a failure of vision in the right eye of three weeks duration. From his history he had evidently contracted syphilis five years before. On examination, the vision of the right eye was reduced so that he could see only to count fingers at five feet. He had also paralysis of the third nerve on the same side, producing ptosis, a dilated and fixed pupil, and divergent strabismus. The sense of smell was wholly gone on that side. The patient also complained of severe

frontal headache, and became at times very giddy and faint. The ophthalmoscope revealed a violent monocular right-sided optic neuritis, the swelling amounting to three dioptics. Left eye vision and ophthalmoscopic appearances normal. The bichloride of mercury and iodide of potassium were given in large doses for some weeks, and improvement followed so far that some movement of the globe inward could be obtained. Atrophy of the optic nerve succeeded the neuritis, and vision was reduced to perception of light. No further improvement followed treatment.

The eye-condition in this case evidently was due to an intra cranial gummosus formation at the sphenoidal fissure and optic foramen on the right side.

PARALYSIS OF SIX OF THE CRANIAL NERVES FROM BASILAR MENINGITIS

J. D., æt 37, a dentist of Columbus, visited me May 18, 1883. During the war, he received a flesh wound in the right forearm, and was left uncured for in a vacant house for 48 hours, the nights were very cold. Following this he had swamp fever, and subsequently became seriously ill with some form of brain disease. His recovery was complete, except so far as his eyes were concerned, they having remained unchanged since his convalescence, except that his visual power is monthly decreasing.

Status præsens—Patient in an advanced stage of pulmonary consumption, no history of syphilis. Absolute immobility of both eyeballs, and double ptosis, from paralysis of the third, fourth and sixth pairs of cranial nerves. Paralysis of the facii on both sides, some impairment of cutaneous sensibility over the face. Vision, ability to count fingers at five feet. The optic nerves in an advanced stage of secondary atrophy, the irides and ciliary muscles not paralyzed. He has never had any form of general paralysis, and his intelligence has not been impaired since his illness.

This case exhibits paralysis of six pairs of the cranial nerves. I regard the condition as having been due to a basilar meningitis which succeeded the intermittent fever.

A CASE OF CHOKED DISC ASSOCIATED WITH A TUBERCULAR TUMOR IN THE CEREBELLUM

On the first of April, 1882, I was invited by Dr. Buckner, of Youngstown, O., to make an ophthalmoscopic examination in a case of brain disease, the previous history of which is as follows:

The patient, H. W., æt 26, a locomotive engineer, had suffered for some weeks with intense frontal headache and lancinating pains shooting through the head from the occiput to the vertex. He had frequent attacks of giddiness and faintness, and on several occasions had convulsions after running. He had also become totally deaf on the left side. His vision was $\frac{20}{20}$, both eyes. No marked change in the visual field. Ophthalmoscope revealed choked disc, the swelling of the heads of the nerves measured five dioptics. Rapping on the head did not give rise to pain. The tuning fork was not heard on the left side. Brain tumor was diagnosed. Favorable prognosis given. No cure.

was obtained Bichloride of mercury and iodide of potassium were prescribed

I saw him a month later, and he had become wholly blind, and had had frequent convulsions in bed. During the next month his convulsive attacks appeared daily, and he died comatose

At the autopsy, in the left lobe of the cerebellum an abscess was found, containing about a teaspoonful of pus, and close to it a tumor the size of a marble, in the center of which was a calcareous deposit the size of a hemp-seed. The tumor was on examination found to be of the tubercular variety

SYMPTOMATOLOGY IN INFANTS

BY WILLIAM B. ATKINSON, M.D., LECTURER ON DISEASES OF CHILDREN, AT JEFFERSON MEDICAL COLLEGE, PHILADELPHIA

By many persons, the study of disease in infants is regarded as peculiarly difficult, because of the absence of speech by which to indicate the presence and location of certain symptoms. The late Prof. C. D. Meigs, on the contrary, was wont to felicitate himself on this as an advantage. He would say, "An infant never tells a lie." It cannot imitate the young lady who assures the doctor that she is dying, or suffering unspeakable torments, when the next hour she is ready to whirl till daylight in the dance, or fill her stomach with a *melange* as curious as it is hurtful.

In the investigation of all forms of disease, whether in children or in adults, we are generally too apt to jump at a conclusion, and make a diagnosis which would often be different were it prepared with less haste, and with the aid of other factors. Careful, guarded observation should ever be the rule. The whole ground should be accurately surveyed, each symptom, each point compared, and the result will prove more satisfactory than is so frequently the case where, after a few hurried questions addressed to a stupid or careless nurse, and an equally careless examination of the infant, the physician supposes what is wrong, and writes a prescription which may be harmless, often is useless. It would be better to leave the child to nature, and give a placebo to satisfy and occupy the nurse, who will be sure to administer some of her own foolish mixtures if not otherwise employed.

At the outset, the most important matter to the physician is a thorough knowledge of the infant as a healthy being, that he may have a means of comparison by which to judge as to the presence or absence of disease. It is seldom, however, that these points are considered, and more rarely are they studied.

In this connection, I would refer to my lecture entitled "The Conditions of Life in a Healthy Infant."

Additional force is given to these remarks by my observing, on a recent occasion, the great want of knowledge in the profession as to the commonest points in child-life, and a learned authority gives a striking example of the same, where, at a criminal trial, the experts summoned could only give the most vague and general ideas as to the quantity of food required for a healthy child at a given age.

Starting, then, with a well-grounded knowledge of the child as it should be in health, we make a careful examination of the little one at every point. Its history and its surroundings must be equally inquired into, that we may thus be enabled to eliminate any points tending to confuse in grouping the results of these inquiries.

In such an examination, we are largely, if not wholly dependent upon the objective symptoms.

We must learn from the attitudes, the movements, the cries, the skin, as well as the pulse, respiration and temperature. In fact, the last three are least to be depended upon.

In health, the attitude of a young child should be a natural, easy one, with no appearance of strain in any of its motions. Here, however, is room for error, unless we possess a knowledge of the special case which we are investigating, as children are often observed to assume in health an attitude simulating that of disease. Hence, a peculiar or apparently unnatural position should not cause alarm unless associated with other positive symptoms. We have frequently seen infants sleeping with the head drawn far back, similar to the position of one suffering from cerebro-spinal fever. When it is observed that the movement of any part causes pain or uneasiness, that point should demand the closest investigation, and at the same time a search should be made as to the occurrence of any causes likely to have produced such a result.

Perhaps the first point which attracts the attention is the face of the infant. While we cannot fully agree with some authors that there is such a close relation between the expression of the countenance and the seat of disease, yet we know that much is to be learned here.

Pain is at once shown by the face.

Corrugation of the brow, twitching of the corners of the mouth, tremulous movements of the eye-lids, are generally prodromes of convulsions, and when associated with other symptoms should lead to the belief in the presence of cerebral trouble.

Pallor of the countenance almost invariably is present in intestinal diseases, and usually accompanied by a fretful, peevish look. This pallor, with emaciation of the features, is seen in all diarrhoeal affections. When the exhaustion is great, as in cholera infantum, these symptoms are present to a marked extent, as seen in those sudden attacks where, within twenty-four hours or even less, the infant resembles a little old person, and is so altered that those around fail to recognize a familiar feature. Here we have the hollow cheek, the sunken eye with half-closed lid, the waxy, cadaverous look, a dark circle surrounding the mouth, deep blue circular lines beneath the eyes, the pinched nose, the mouth half open, disclosing the tongue, which lies parched in its cavity, the cold and feeble breath, all witnessing that great exhaustion preceding dissolution.

When the face is flushed, hot, swollen, we find acute brain disease. When the face assumes a dusky hue there is from some cause imperfect aeration of the blood, as in congestion or other lung trouble. In cases of inflamed lung the hue is brighter, and asso-

ciated with difficult breathing, as specially shown by the rapid dilatation of the *alæ nasi*, and the efforts at inhalation

In the very young, the infant that has attained to but few days or hours, deep blueness of the face and general surface indicates imperfect action of the heart and its appendages. This rarely fails to be seen from birth, is usually increased by any effort or excitement, and must be regarded as a very grave symptom

Discoloration of the skin should always be examined with care, lest an error be made as in icterus. In very many infants more or less yellowness of the whole surface appears during the first few days, and as readily disappears. This should be borne in mind.

Again, the attack of strophulus, or gum, as it is called, rarely fails to occur within the first week or two, and has even been taken as the evidence of an attack of an acute eruptive fever. Such errors are constantly seen, as where the bites of insects have been taken for an eruption. In fact many ridiculous instances might be mentioned.

Pain is shown by a sudden contraction of the countenance, when more severe, accompanied by a sharp cry or moan during sleep, and when associated with the drawing up of the knees, will indicate that the seat of the pain is in the abdomen. In such instances the face becomes suddenly pale, with a whitish or bluish circle around the mouth.

When the infant has pain in the head, it is indicated by sudden and more or less constant contraction of the brows. This may be neuralgic, and then usually intermittent, but when protracted it should be regarded as of a grave import, as showing the presence of meningeal or cerebral disease.

The eyes should especially attract attention. Strabismus, when not habitual, as the congenital form, or that resulting from previous diseases, by itself indicates chronic meningeal disease, and is always an unfavorable symptom. A turning in of the eyes almost invariably occurs prior to a convulsive attack, and generally soon disappears after the cause is removed. Foreign bodies in the alimentary tract, as indigestible matters, masses of worms, scybalous masses, constantly cause this symptom, and by a continuance of the irritation produce convulsions.

The pupil of the eye is not so valuable as a diagnostic aid, because of the constant radiations to which it is subject. Irregularity of the pupils—one being contracted, the other dilated—would indicate a lesion at the base of the brain. Fixed dilatation or contraction are to be regarded when other disease is present, such as alimentary trouble, as showing the involvement of the brain. In such cases care must be taken to ascertain whether the infant has been habituated to the use of opium. Perhaps this is one of the most important questions that can be asked, and should always form a part of the preliminary examinations when obtaining the history of the child. In inflammation of the brain there is usually, at first, great contraction of the pupils, as the attack progresses dilatation follows, with complete insensibility to light as the end approaches.

Photophobia is seen in measles, more rarely in

scarlet fever, and small-pox. When this symptom is combined with inflamed conjunctiva, and other symptoms are wanting, the disease is at once localized as a conjunctivitis. A special diagnostic is the watery eye in measles, and the bright, glistening eye in scarlet fever.

The gestures of an infant soon become an important feature. At a very early age the baby is attracted by the light and will follow it in its course. Soon it notices its fingers and things which are put into its hands, and while children are remarkably different as to their progress in such matters, yet stolid indifference to its surroundings should awaken inquiry as to its condition. An infant that has shown evidence of ability to notice, and then becomes utterly indifferent, is undoubtedly out of health. Thus the debility incident to the approach of chronic disease is marked by that languor which prevents the infant from holding up its head or sitting up unsupported.

In chronic hydrocephalus the head soon appears to be too heavy to be held upright, and the child assumes the recumbent position, or one in which the head is supported other than by its own muscular efforts.

Irregular or unnatural movements of the limbs indicate the approach of convulsion, or an attack of chorea, which, by the way, is of extremely rare occurrence in infants.

Paralysis may be diagnosed when the infant fails to move a limb in response to tickling or other irritation, or refuses to grasp an object with either hand, or where it constantly moves one leg or arm while the other remains motionless.

Earache should always be suspected when the infant pulls at its ear or constantly applies its hand to that part, or rubs the head against the pillow on that side. When, in addition, it screams at intervals, and applies its hand as above, there is undoubtedly neuralgia or otitis.

Picking or rubbing the nose has long been regarded as an indication of intestinal worms, but this symptom is also seen in nearly all forms of alimentary trouble.

As a precursor of convulsive attacks, we rarely fail to see a turning in of the thumbs and great toes. The thumbs are forcibly turned into the palms and grasped by the other fingers, and the toes are often seen as if endeavoring to imitate this movement.

The actions of the child while at the breast are especially to be noticed. When it takes the nipple eagerly draws a few times and lets go with a scream, we should examine for sore mouth or throat, for closure of the nostrils, as by coryza, which interferes with the breathing while sucking, or even for inability to obtain the milk because of closure of the tubes, or an absence of the supply. Frequently tongue is accused of causing the action, but when in infant can protrude its tongue so as to extend beyond the vermilion border of the lip there is no want of ability to grasp the nipple.

The sleep should be calm. Very profound slumber may be due to an over loaded stomach rare with the very young as they usually relieve this difficulty by ejecting surplus to an over

loaded brain, in which case other symptoms will aid in the diagnosis, as where coma, or an approach thereto, occurs during brain disease, etc

In bowel affections, the sleep is short, much disturbed, and the child awakes in a peevish, unrefreshed condition

The voice even in the very young is usually a positive aid in diagnosis. The cry of hunger is loud and continued until the wants are supplied. That of fright is repeated, breaking forth again and again after the efforts to quiet it, and the child shows a wild, perturbed look. That of passion is shrill and continuous, accompanied with gestures which cannot be mistaken, but point most positively to the cause and its remedy.

Acute pain is always shown by shrill screams which seem uncontrollable. Very piercing cries accompany acute brain affections, when intermittent they are usually caused by neuralgia, and particularly that of the ear. The cry of the infant, exhausted as by cholera infantum, is at times sharp, querulous, and then a low moaning as though its strength was gone. In pneumonia, pleurisy, or imperfect expansion of the lungs the cry is low, moaning. In hydrocephalus, we have the child awaking partially with a shrill, piercing note and falling back into a semi-comatose condition. A muffled or hoarse cry is heard where false membranes or effusion have formed in the throat. The peculiar bark of croup is readily recognized.

Temperature requires but little change to indicate disease. A degree below the normal accompanies exhaustion, sinking, the approach of death. Very high temperature is almost invariably one of the earliest symptoms of the eruptive fevers, particularly scarlatina. In this disease the hand, when held for a time, seems to become hotter and more dry. In all attacks of fever or inflammation, the temperature is high, and the higher its range, the more grave is the attack. In blood poisoning, as diphtheria, the temperature, high at the outset, soon sinks, and when below the normal a fatal result must be anticipated. The importance of the clinical thermometer in diseases of the young cannot be over-estimated.

But little reliance can be placed upon the respiration as a means of diagnosis in infants. At all times it is very irregular, the most marked changes occurring from the most trifling causes. It is remarkably slow in cerebral affections, occasionally giving the impression as though it were about to cease entirely. Or it may become intermittent. These symptoms occur in all diseases where there is exhaustion. In inflammation of the lungs and their appendages the respiration is accelerated, even panting, and is performed with more or less difficulty, as the result of the pain it causes. A most unfavorable symptom is that mode of respiration where the air is drawn in as with an effort, with great dilatation of the nostrils, wide opening of the mouth as though to afford room for the influx of the air. Yawning, when not seen in cases of great debility, is usually a precursor of an intermittent attack. In infants this symptom is often followed by a convulsion, which frequently recurs at a fixed hour, and thus marks an intermit-

tent. Rigor is almost invariably substituted by convulsion in young children.

The cough affords additional information, in spasmodic croup it is loud, ringing, barking, in membranous croup it is harsh, muffled, painful, and with an effort at suppression in pneumonia, pleurisy, etc, in spasms and long-continued in pertussis.

Sneezing occurring in rapid succession generally marks the commencement of measles.

The pulse is so readily influenced by slight causes that, like the respiration, it is of little value as a diagnostic sign. To make any estimate as to its rate, it should only be counted when the child is asleep. A rapid pulse with an increased temperature is an indication of fever, and this rarely fails to be marked by exacerbations, which usually occur in the afternoon. A very slow pulse is generally found in congestion or compression of the brain. With a tendency to coma, this is a very unfavorable symptom.

In examining the mouth, we may find the tongue and adjacent surfaces of a brilliant red. In the acute eruptive fevers, this is darker or brighter, according as we have measles or scarlet fever, the former the "raspberry tongue," the latter the "strawberry tongue," from the resemblance in color and appearance to those fruits, due to the variety of redness and the elevation of the papillæ. This peculiar sign occurs at a very early period, several hours prior to the appearance of the cutaneous eruption. In scarlet fever, we have added a hot, dry breath. With such symptoms, we find general redness of the middle of the soft palate, which may extend to the anterior faucial pillars and the tonsils, rarely, as in small-pox, to the posterior wall of the pharynx alone. Another special sign in measles is that the posterior walls exceed the anterior in redness. To distinguish further in these two forms of fever, in scarlet fever we would have no swelling of these parts for the first few hours, while in measles the tonsils would be swollen as an early symptom. In all eruptive fevers, it is usual for the eruption to appear first on the roof of the mouth. In scarlet fever, this would be of a bright scarlet hue, without prominence, disappearing momentarily on pressure.

When the tongue is covered with a white matter resembling curds, the bowels are disordered. Here we find aphthæ, small ulcers, or even patches of ulceration, the result of improper food, indigestion, etc, all pointing to a debilitated condition of the bowels.

Swollen tongue, showing the indentations of the teeth, is always a symptom of bad omen.

The tongue dry and roughened, or dark, is a very unfavorable symptom. On the contrary, as moisture begins to show on the tongue, a favorable state of the child may be assumed.

Vomiting occurs so easily in infants, that it often may be regarded merely as a regurgitation of the surplus food. Hence, it does not usually attract so much notice in the early stages of disease. When the food comes up undigested some considerable time after it has been taken, it indicates want of tone in the digestive organs. Acid vomiting tells its own story.

Vomiting almost invariably occurs at the outset of scarlet fever, very rarely in the other acute exanthems, and does not recur, except in very grave cases. In affections of the brain, particularly after injuries, as by blows upon the head or concussion of this organ from any cause, vomiting is a constant symptom. It is an early concomitant of cholera infantum. It must also be remembered that vomiting is frequently the first sign that the breast milk is disagreeing with the child, because of pregnancy, or other condition improper for the continuance of nursing. The diagnosis is here made by the constant recurrence of this symptom without the advent of others, unless it be diarrhoea or the evidences of want of nourishment. Vomiting often ensues immediately when a child is nursed by an excited or exhausted mother. Here, too, coma or convulsions frequently follow.

Vomiting will occur in many infants that are deprived of the breast milk, or where an improper form of food is employed. With many children, it becomes a matter of great difficulty to find food that will agree with, or even be tolerated by the stomach.

The breath of an infant should be odorless. It becomes acid from an excess of acid in the food. All odors of the breath should attract attention, especially that of fœtor. This demands a careful examination for ulceration of the cheeks, throat, nose, etc. Occasionally it has been the earliest notice of the presence of diphtheritic throat.

The evacuations from the bowels should always be carefully inspected. Rarely can so much be learned by a description as by an inspection. Hence the nurse should reserve each diaper as removed, or several separately when convenient, and without the admixture of anything which would change the appearance of its contents. Sometimes a number of evacuations, alarming by their number, when combined will only amount to what should ordinarily be passed at once. Errors in diet are readily detected by the presence of particles of undigested food, seeds, skins, curd, and a variety of foreign bodies. Thus may be shown the presence of parasites, acidity, blood, mucus, the want of bile, and other disordered conditions. Blood mixed with mucus, febrile symptoms being present, would indicate dysentery. Pure blood would demand an examination for an injury, a foreign body, a polyp, and would be a symptom of purpura hæmorrhagica. Difficult passages, with blood or small discharges of blood, and the absence of the ordinary matters, would indicate constriction of the bowels, intussusception, etc. Dark green discharges or black tarry evacuations continuing for days after the birth of the child, show that the meconium has not been completely expelled.

Cold causes the passage of slimy mucus. The absence of one or more evacuations each day is important to notice, lest when other symptoms do not present a habit should thus be contracted. Colic is thus produced, inflammation of the bowels, or the straining to cause an evacuation may end in prolapsus ani, hernia, or other injury. In obstinate constipation the use of opiates may be suspected, and a most rigid inquiry should be made.

The urine if passed with pain or suppressed, de-

mands an examination of the genitals to detect the presence of a stone in the urethra, an agglutination of the orifice of the prepuce, etc. The urine becoming scanty or disappearing after an acute attack, as scarlet fever, indicates disease of the kidney and dropsy.

A very frequent trouble is constantly overlooked, or regarded in a wrong light. This is incontinence of urine. Much injustice is caused by a want of knowledge as to the nature of this affection. Parents, supposing it due to natural uncleanness, or to laziness, endeavor to correct it by severe punishment. Again, by many it is regarded as utterly incurable—a belief which is, unfortunately, shared by members of our profession and thus neglected, children are suffered to grow to years of maturity the victims of a disgusting malady. Even in these cases, in many instances, it has proved amenable to treatment.

Night terrors, that peculiar condition which causes even older children to spring screaming from the bed at night, or to scream and cover their heads with the clothing, should not be disregarded or treated as willfulness. It is a symptom imperatively demanding attention, and one which if its causes are not removed may eventuate in idiocy, or later in insanity.

Finally, a careful grouping of symptoms, the elimination of causes of errors, a thorough examination of the infant both during repose and when aroused, and, in the event of difficulty in making the diagnosis, with the clothing entirely removed will rarely fail to enable the practiced and observant physician to arrive at a positive conclusion as to the nature and cause of the affection, and give him a clue to the proper line of treatment.

IS ALCOHOL ESSENTIALLY A STIMULANT OR A PARALYZANT?

BY A. B. PALMER, M.D., LL.D., PROF. OF PATHOLOGY AND PRACTICE OF MEDICINE, IN THE COLLEGE OF MEDICINE AND SURGERY, UNIVERSITY OF MICHIGAN.

For many years past, from my own observations and experience, I have been convinced and have taught, that alcoholic drinks should not be spoken of as stimulants—as though their leading effect was the increase of power or activity in the system. That in certain conditions of disease, of shocks from injuries or suffering, and in some persons habituated to their use, they increase action temporarily, I have admitted and still admit, but that their effect in the physiological condition is to increase action at least to any useful extent, even temporarily, in whatever quantity used, I have for a very long time doubted, and for several years past have very confidently denied. In the particular function where the most positive and ready test can be applied—that of muscular power—experiments have always shown that no quantity of alcohol small or great, can increase that power in ordinary healthy conditions. One lifting all he is able cannot be made to lift more by taking alcohol. Experiments in this and elsewhere have

ficient alcohol was taken to produce an appreciable effect upon the muscles, their power has been *diminished* and not increased. It has been proven that this is the case not only with men, but with other animals. The horse, in the races when strength and fleetness are most exactly tested, cannot be made to run faster by any alcoholic dose, but on the contrary is weakened and rendered helpless by it.

These facts have long been known, though the proper conclusions from them have not always been drawn. Men who indulge in alcohol often fancy themselves stronger from its use. When so much weakened by it that they can scarcely stand, they often boast of their strength prompted by a deceptive feeling. When it is taken in smaller quantities, the same delusion is often produced. Those who habitually use alcohol, opium, or even tobacco, feel depressed when deprived of their accustomed narcotic, and are revived by returning to it, but no physiologist thinks of calling tobacco a "stimulant" because of this. All contend that its effect is essentially sedative—a diminisher of action. The writings of the late Dr. Anstie, of London, though he was not an advocate of complete abstinence from alcoholics, have done much to call attention to the precise action of these articles, and oppose the more common but erroneous view of their "stimulating" qualities.

The views of Dr. Richardson, the eminent sanitarian, physiologist and physician of London, on this subject are well known, but as years ago he followed his physiological views to their practical conclusions, and became an ardent advocate of total abstinence, a practice and a cause at that time, and still with some, unpopular in England, his opinions founded on scientific experiment and careful observations have not exerted the influence among scientific men to which they are entitled. More recently other scientific men, not connected with any special temperance movement, have expressed opinions on this subject which must have much influence in changing professional opinions and expressions, though long established custom of expression, belief or practice is slow to change.

Dr. Samuel Wilkes, of Guy's Hospital and Medical School, and one of the most acute and independent thinkers in the profession, in England and elsewhere, in an article in the *Cotemporary Review*, since published with other articles on the subject in a book, says

"If most persons analyze their sensations after imbibing any alcoholic drink, they will soon discover that to describe the effect produced upon them by it as *stimulating*, is a *misnomer*, and that, consequently, the employment of the expression almost begs the whole question as to its operation and value, for there can be but little doubt that it is owing to this misapplication of the term *stimulant* to alcohol, with many conveying an idea of strength, that causes it to be so much recommended, and taken with so much satisfaction. If a person is low and a glass of wine produces a pleasurable effect, it is easy to regard it as a stimulant, and as having afforded some proportion of strength."

This, he thinks, is a mistake. He further says "Its stimulating effects may be regarded as *nil* compared with those which may be styled its *sedative* or *paralyzing* ones. In a word, alcohol for all intents and purposes may be regarded as sedative or narcotic, rather than stimulant." He classes it with opium, Indian hemp and tobacco. It doubtless may sometimes temporarily soothe a worried, nervous system, but its secondary effects cause more worry, which worry it may again soothe. But by these repetitions the *alcoholic habit* and all its sad effects of chronic alcoholism follow.

But other means of testing this question of the stimulating or sedative effects of alcohol more precise and measurable, if not more satisfactory, are used. One of the latest series of experiments which has come under my observation was made by Sidney Ringer, M.D., author of an excellent work on materia medica and therapeutics, and professor of the practice of medicine in University College, London, together with Harrington Sainsbury, M.D., M.R.C.P., published in May number, 1883, of *The Practitioner*, a journal of therapeutics and public health, edited by T. Lauder Brunton, M.D., F.R.S., Fellow of the Royal College of Physicians, lecturer on materia medica and therapeutics in St. Bartholomew's Hospital School, etc.

The object of these experiments was to ascertain the strength of the different alcohols, and they were made upon the hearts of frogs. They were conducted in a strictly scientific manner, with the most approved instruments of precision now so frequently in use by original investigators in physiology.

All the alcohols were found to diminish the power and soon to stop the action of the heart, and the experiments were so managed in the light of previous experience as to have the complete arrest occur in about an hour, and the strength of the different alcohols was determined by the quantity required to produce the effect.

It was found according to these experiments, that the action of all the alcohols was essentially the same in kind, differing only in degree. All arrested the heart in diastole—that is, stopped it in a state of relaxation or paralysis. *None of them increased the power of the heart at any time or in any degree of their action, but diminished it from the first, and until it was arrested.*

Of the methylic alcohol (C_2H_5O), the lightest and most powerful of the series, 205.5 minims were required to stop all action in the given time. Of the ethylic (C_2H_6O), the common alcohol, it required 114 minims. Of the next heavier, the propylic (C_3H_8O), 59.3 minims were required. Of the butylic ($C_4H_{10}O$), 17 minims were required, while of the amyllic, the heaviest ($C_5H_{12}O$), only 6.6 minims were required to stop action.

These articles, properly diluted, were caused to pass through the heart, and were thus applied directly to its tissue, and may not represent the action of the articles correctly in all respects as applied to the general complex human system, but the experiments showed clearly the essential action of the agents, and demonstrated more positively their paralyzing, and

the absence of their stimulating effect, than their application to a complex organism, where paralysis of *inhibitory* or restraining functions may result in increase of certain actions

These experiments, the authors declare, demonstrate more definitely than any others that have been instituted the *essential qualitative similarity* of the action of all the alcohols—their *sedative* effects—and a certain general *quantitative* relationship of one to another. It is scientifically interesting to the chemist and the physiologist to know that as the complexity of the molecular combination increases, the physiological activity, or poisonous effect, increases

There are some small quantities of these heavier alcohols in various liquors, and certain combinations of them are said to constitute the fusil oil. The quantity compared with the 50 per cent, more or less, of common alcohol in spirits, is not often sufficient to modify the effect to any appreciable extent, especially as the qualitative effects of all the alcohols are so similar, but so far as they are present they increase the poisonous qualities of the liquors containing them

The report of Drs Ringer and Sainsbury closes with the remark, announcing the most important practical fact which these experiments confirm, viz, "that by their direct action on the cardiac tissue these drugs are clearly *paralyzant*, and that this appears to be the case from the outset, no stage of increased force of contraction preceding" (*Practitioner*, May, 1883, p 350)

In another part of the report the authors say "The position alcohol occupies is that of a *narcotic*, and it is probable that its action is very similar to that of ether. The sphygmographic experiments of Parkes and Wollowicz on man showed clearly the accelerating effect [of alcohol], but gave no distinct indication of increased arterial pressure." The arterial pressure is the evidence of the increased force. Increased frequency of pulsation is often the strongest evidence of diminished force or power, a very rapid, fluttering pulse usually occurring in extreme weakness

All agree that the ultimate effect of any considerable amount of alcohol is depressing and paralyzing, and that in chronic alcoholism all the conditions indicate the failure of power, but yet many, even medical men, at least by their use of language, seem to think that in moderate quantities and as frequently used it is a stimulant, and some perhaps still regard its depressing and fatal effects as the result of overstimulation

With the facts now presented before us, and others of a similar character so constantly accumulating, it cannot be long before our ideas and our language respecting alcoholic drinks will more nearly conform with the teachings of science

A CASE OF TYPHLITIS, WITH AUTOPSY

BY R. D. BARKER, M.D.

Luella A., American, aged twenty-one years. Was called to see her first at 2 P. M., July 5, 1883. Learned the following history of the case. Had

been for some time of a costive habit—bowels frequently not moving for three or four days. Although not feeling very well, she went on an excursion to Spirit Lake, twenty miles distant by rail July 4. The forenoon of the day was damp and rainy, and upon arriving at the lake she was too ill to join her companions in the grove, but lay on the sofa in the sitting-room of the hotel most of the day. She complained to her friends of pain "across her," and vomited once or twice during the day.

On returning home in the evening, not having had movement of her bowels for two or three days, and the pain across her continuing, her mother gave her a dose of salts which she vomited. In the evening after her return she attended a dance, but was too ill to stay long, was in pain all night, the night of the 4th, the morning of the fifth, her bowels remaining costive, her mother gave her some senna tea which she vomited. I found her at 2 P. M., the 5th of July lying dressed on a sofa, had been crying, and seemed very low spirited, anxious and dispondent, very little febrile excitement, pulse 92, temperature normal, tongue slightly coated. Her menses had appeared two weeks ago, and she was regular in her periods, she complained of severe pain in lower part of abdomen, extending to the pubes, excessively tender over the region of pain, very little tympanites, urine normal in quantity (so she said), but voided with pain, bowels not moved for three days. The pain being so slow down and so severe, without the grave constitutional disturbance indicative of peritonitis, I diagnosed neuralgia of womb and appendices, and ordered copious vaginal injections of water as warm as could be borne, to apply hot applications over abdomen, and

R	Fluid extract gelsemini	gtt 1x
	Fluid extract belladonna	gtt 2vi
	Simple Elix	5vi
M	Sig Teaspoonful every two hours	

Was called at 11 P. M., medicine had given no relief, lies on the sofa, with knees drawn up, face flushed, pulse 140 and depressed, abdominal tenderness very marked, patient crying out in agony.

I question mother, and learn that she had not urinated to day, and that they had misunderstood my orders, and had given her one quite large warm water enema into the rectum, which had produced two free liquid discharges. I pass catheter, but obtain no water, I introduce $\frac{1}{4}$ grain suppository of sulph morphia into rectum, I ask for counsel, and Dr J Croft is called. We wait half an hour for the effects of the suppository, and then find it necessary to give her by hypodermic injection $\frac{1}{4}$ grain sulph morphia and $\frac{1}{10}$ grain atropin. This in the course of an hour gives her much relief, and we leave her with instructions to introduce the suppositories every two hours if necessary to relieve pain, and to continue hot fomentations.

Saw her again at 9 A. M., now thoroughly under the influence of the morphia, but hardly free from pain, has had nausea since early morning, and has vomited several times, greenish, bilious fluid, containing no fecal matter, pulse 150, and weak. Had bathed in cold, clammy sweat, and not much

dryness and burning sensation in her throat and stomach, introduce catheter and withdraw 8 ounces urine, is to continue suppositories as may be necessary to keep her comfortable, continue hot fomentations, and to have ice water freely and to swallow little pieces of ice frequently

6 P M Not quite so tender over abdomen, increased tympanites, still vomiting, not fecal, seems to retain what is given while the stomach fills, and then ejects it, bowels not moved, perfectly rational, distress at stomach and throat continues, pass catheter and obtain 6 or 7 ounces of urine, ordered mustard over pit of stomach, otherwise continue treatment

Called at 1 A M July 7, again in agony, pain and area of tenderness increased, now extending from pubes to navel, vomiting continues, prostration extreme, cold, clammy perspiration, pulse hardly numerable, I introduce catheter and obtain 8 ounces of urine, and introduce suppository, and again call Dr Croft. When he comes she seems much easier, and we conclude the alarming symptoms to be the result of the distension of the bladder. Dr Croft, who has from the first visit been inclined to the belief that the disease was intussusception of the bowels, suggested the introduction of a long flexible rectal tube, and the flooding of the bowels with tepid water. Going to his office for his tube, when he returned she was so much easier we postponed the operation

9 A M Has slept since previous visit, is more comfortable, vomits, but less often, not as much abdominal tenderness, and less tympanites, pulse 120, fuller, withdraw 4 ounces urine. As she now seems almost free from pain, and believing the discomfort of the throat and stomach is caused by the morphine, I discontinue the suppositories

6 P M Vomiting ceased, free from pain, pulse 120, temperature 98°, catheter passed, and 6 ounces urine obtained, is now taking no medicine, beef tea, wine and milk, as much as stomach will tolerate, called at midnight and passed catheter—6 ounces urine

July 8—9 A M Has slept considerable during the night, more comfortable, perfectly rational, and much more hopeful, pulse 128, temperature 98½°, has passed her urine once since midnight unassisted

6 P M Seems to be slowly improving, stomach retains considerable liquid food, is now taking no anodynes, tenderness and tympanites disappearing, as she has had no movement of the bowels since the first day of the attack, and she complains of desire for the stool, I direct the nurse to inject into the bowels slowly and carefully one half pint of warm water, discontinuing the injection the moment it gives her pain, half an hour after was called in great haste, and found patient suffering greatly, her mother informed me that they commenced to give the enema as ordered, but had passed up not more than two or three tablespoonfuls before she commenced to complain of its giving her pain

I now called Dr L W Warren in council, and expressed to him my positive conviction that there

was a perforation of the bowels somewhere in the region of the descending colon, and that the injected liquid passed directly into the peritoneal cavity. In no other way could I account for the sudden increase of all inflammatory symptoms every time the syringe was used. Dr Warren advised the resumption of the hot fomentations and the morphia suppositories, and also the application of pure chloroform upon flannel to the region of abdominal pain and tenderness

From this relapse she never recovered. All the inflammatory symptoms returned in an aggravated form, she became delirious and rapidly sank, and died July 11th, at 11 A M

Autopsy five hours after death

Upon opening into the abdominal cavity I find it filled with a yellowish milky fluid, evidently the liquid food she had been taking for several days

There was diffused inflammation of the peritonæum and bowels, much more marked on right side in the vicinity of the descending colon and appendix vermiformis, and a creamy, tenacious deposit on the coat of the bowels, evidently of inflammatory origin, and a slight deposit of pus in the immediate vicinity of the appendix

Examining carefully the appendix vermiformis, I find a perforation, and just at point of perforation, but within the part, a hard substance about twice the size and of the shape of a kernel of wheat, which proves to be hardened fecal matter. Upon pressure upon the bowels, its contents would be expelled through the rupture

The remarkable features of this case are, the length of time she survived the perforation, and entrance of the fecal matter into the abdominal cavity (as I am confident, from a careful study of the case, that the first injection given into bowel, when ordered for the vagina, passed into the abdominal cavity), and the seeming improvement of the patient after perforation

WORTHINGTON, Minn, Aug 31, 1883

At the last meeting of the New Brunswick Medical Society at St Johns, the following members were elected. Dr Vail, President, Dr Walker, 1st Vice-President, Dr Patterson, 2nd Vice-President, Dr G M Duncan, General Secretary, Dr Coleman, Corresponding Secretary, Dr Nevers, Treasurer, Drs Daniel, Allison and Berryman, Trustees. The meeting then adjourned to meet in St Johns, on the 3rd Tuesday in July, 1884

PROFESSOR WALDEYER, of Strasburg, succeeds Professor Reichert in the chair of Anatomy in the University of Berlin. Dr H Chian has been made Professor of Pathological Anatomy in the University of Prague

Gaillard's Medical Journal has returned to its old monthly form. The change was made at the request of many subscribers. It is now the only monthly medical journal published in New York

THE

Journal of American Medical Association.

PUBLISHED WEEKLY

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JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, SEPTEMBER 8, 1883

EXPLANATION.—We have allowed the papers furnished to the late Chairman of the Section on State Medicine to occupy in this number the space usually given to "Medical Progress." The latter will be resumed as usual in our next number.

PROGRESS OF STATE MEDICINE AND STATE BOARDS OF HEALTH.—The Section on State Medicine of the American Medical Association embraces a standing committee of one from each State, whose duty it is to report the progress and condition of State Medicine in their respective States. Previous to the annual meeting in Cleveland, June, 1883, the officers of that Section addressed to each member of that committee the following questions:

- 1 Have you a State Board of Health or its equivalent?
- 2 What changes, if any, have been made during the year in the organization, powers and duties of such Board?
- 3 The number and character of its auxiliary and local organizations, if any?
- 4 The changes made, if any, in your laws designed to arrest the spread of communicable diseases, and what diseases are held, by statute, to be communicable and dangerous to public health?
- 5 What, if any, new laws or amendments of old ones, providing for the collection, tabulation and publication of vital statistics?

One of the questions to be presented for the consideration of the Section of State Medicine, at the meeting in Cleveland, June 5, prox, will be—

"How can medical men best promote sanitary progress? Do the advanced ideas and radical measures of medical men and medical organizations, on

sanitary questions, retard State or municipal sanitation?"

Any facts, bearing on this question, which your report may include, will be welcomed.

I have delayed this usual call, for these annual reports, in order to get the latest action of our State Legislatures.

Very respectfully,
FOSTER PRATT, M D, Chairman,
Kalamazoo, Mich

THOS L NEAL, M D, Secretary,
Dayton, Ohio

Responses were made to these questions by the representatives of the following States and of the Medical Corps of the Navy: Arkansas, Colorado, Indiana, Illinois, Kentucky, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, North Carolina, Ohio, Rhode Island, Tennessee, Virginia, and Wisconsin.

Several of these responses consist only of printed reports of Boards of Health or brief references to such documents, while a few of them give a full account of the progress of official action in the efforts to improve the sanitary condition of the people and in some cases to regulate the practice of medicine. The progress of the work in Michigan was fully explained in the address of the Chairman of the Section, which was published in THE JOURNAL for Aug. 18, and a full account of the practical working of the sanitary and medical legislation in Illinois is given in the report of Dr H A Johnson, which, by request, was read in full before the section, and therefore we feel justified in giving it a place here. We shall also give nearly a or full copy of the report by the representative of the navy. The report of Dr H A Johnson, in regard to the "Working of the Illinois State Board of Health" is as follows:

This Board is no longer an experiment. With the close of this month will end the sixth year of its existence. During these six years it has at least met the expectations of those who were most active in promoting its formation.

With many limitations and imperfections in the constituting act, it has accomplished much of permanent value both for the profession and for the public. It is doubtful if such results could have been accomplished in any other way or by any other agency, at this stage in the development of public opinion.

At the date of the foundation of this Board, July 1, 1877, the profession in Illinois embraced 7,400 individuals, and was composed, in round numbers, of 3,600 graduates in medicine, and 3,800 non graduates, itinerants and nondescripts, who combined various other vocations with that of "doctor" for example, there were, according to the records in the office of the Board, 171 ministers who were upon occasion healers of bodily ailments, and who, it not entitled to write "M D" after their names, had no hesitation in writing "Dr" before them, with quite

as little warrant for the latter by virtue of any regular course of medical study, as for the former by reason of their theological education

These, almost without exception, belonged to some of the irregular schools—Thompsonians, magnetic healers, “faith doctors,” etc., being found among them

But four or five of this class now remain in the State as medical practitioners, and the continued existence of these is due to what is known as the ten years prior practice clause of the Medical Practice Act, concerning which a word or two may be said in another connection

Dr Darrah, President of the Illinois State Medical Society, in a recent address, has analyzed the composition of the 3,800 non-graduates of 1877, with the following results

Applicants to the State Board for certificates under the prior practice clause,	1,956
Non-exempt non-graduates whose names have disappeared from the County Clerks' registers	966
Non-graduates examined for certificates	618

Making a total of	3,542
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He accounts for the remaining 260, concerning whom there is no documentary evidence or official record, as comprising a number of unqualified non-residents, whose practice extended into Illinois, and those who voluntarily left the State during the first five months after the passage of the act, and without attempting to comply with its requirements

In addition to its dealings with the original 7,400, the Board had received, up to January 1st of the present year, applications from 3,780 new graduates and migrating physicians, representing an average increment of 630 per annum, and making a total of 11,180 individuals coming within the purview of the Medical Practice Act, except as exempted by the prior practice clause

From the official register in the Secretary's office, and the returns from the County Clerks' offices—in which every physician, without exception, is compelled to record his name and address—it is found that there were on January 1st, 1883, a total of 6,251 registered practitioners in the State, being a gross reduction of 4,829 from the aggregate of the six years, and an actual reduction of 1,149 from the number in practice July 1st, 1877

If from 6,251 registered physicians there be deducted those not actively engaged in practice, but who still preserve their legal status as practitioners, the proportion of population to each practicing physician will be found to have risen, from 398 to 1 in 1877, to 620 to 1 in 1883. The gain, however, is not to the profession solely, nor even in the larger proportion

In 1877 there were 73 itinerants traveling through this and adjoining States, who swindled the people of Illinois out of an aggregate of over \$200,000 each year. In 1883 there are just seven of these left, shielded by the ten-years' practice clause. There is thus saved over \$180,000 a year to a class of people who can least afford to lose such a sum. Even this affords an insufficient measure of the gain to the

community which results from the higher standard of professional attainments which now obtains through the operation of the Medical Practice Act. Whereas, in 1877 the non-graduates outnumbered the graduates. At the beginning of this year there were 5,559 graduates and only 692 non-graduates. How this change has been effected is shown, to some extent, in the following passage from the report read at the April (1883) meeting of the Board

“Among the certificates issued during the past month a considerable number were to practitioners exempt from the Medical Practice Act, by reason of length of practice in the State, but who have recently graduated from the reputable medical colleges, and also to others holding certificates based on examinations, and who have pursued the same course. It is gratifying to be able to record this result of the recommendation of the Board, whose policy it has uniformly been to urge non-graduate candidates for its certificates to complete the regular curriculum of study, and obtain the diploma of a college in good standing.”

There has been in some quarters criticism of the composition of the Board. The following facts seem to be a sufficient answer to such criticism as far as it relates to a mixed Board

During the first eighteen months certificates were issued to 3,646 regular practitioners and to 1,304 irregulars, including homœopaths, eclectic, and those of no specified school. The last official register shows 4,362 regular and 1,234 irregulars, a gain of nearly 20 per cent to the former and 6 per cent from the latter

The Board is required by the law to accord examinations to non-graduate applicants for certificates, and has examined in all 618. Of these it has passed 220, but with the improvement in the status of the profession it has gradually increased its standard also, until, at the last annual examination, of eighteen applicants five withdrew before attempting to answer the questions and the remaining thirteen were rejected. As Dr Darrah remarks, “The schedule of the questions propounded and the results of these examinations are conclusive that it is not through the action of the Illinois State Board of Health that the ranks of the profession will be swelled by incompetent practitioners.”

By such measures as these, and by its action in reference to the recognition of Medical Colleges, the Board is exerting an influence upon the profession and upon medical education which is by no means confined to Illinois. It has been called upon to determine the standing of eighty-three of the one hundred and ten existing medical schools in the United States and Canada. It has rejected either provisionally or unconditionally, the diplomas of twenty-eight different institutions, thirteen of which are now extinct. Henceforward, the diploma of any school which does not conform to the Board's schedule of minimum requirements will be valueless as entitling its possessor to practice in Illinois. This schedule has been framed after a careful study of the usages and methods of the various schools, and its adoption seems to be another illustration of the prudence,

moderation and wisdom, combined with steadfast effort for improvement which have thus far characterized the official actions of the Board under the Medical Practice Act

That clause in the act which exempts from its operation those who had been in practice ten years prior to its passage, has been the source of much trouble and has incurred for the Board not a little unjust criticism. Under its shelter the few remaining advertising quacks and itinerants still prolong their vicious careers. But time is correcting this, with other evils. As these die out no new crop is possible, and a few years more will see the last of them.

As a sanitary organization, the Illinois State Board of Health has accomplished a very creditable amount of practical sanitary work. During the recent small-pox epidemic it secured, directly, through an official order, the vaccination of over 300,000 public school children, and indirectly, by means of circulars, pamphlets and other methods, the vaccination or re-vaccination of over one and one-half millions of others, both children and adults. Its rules and regulations for the suppression of small-pox were furnished to over two hundred infected localities in the State during the epidemic, and in every instance where they were carried out with any degree of thoroughness the disease was confined to the first cases or families attacked.

It has prepared and published a series of "Preventable-Disease Circulars," treating of small-pox, scarlet fever, diphtheria, typhoid fever, etc., which are admirable in matter and manner.

Among the matters which have engaged its attention, outside of the usual routine, may be mentioned

The promotion of the burial permit system, the removal and transportation of corpses, the sanitary care and policing of railway stations and grounds, the sanitation of railway and steamboat travel, the supply of pure vaccine virus, the formation of local health organizations, remedies for river and canal pollution, the conservancy of water-supplies, inquiries into the causes of excessive death-rates in certain localities, with suggestions for relief, investigations concerning the existence of glanders, trichiniasis, diphtheria, scarlet and typhoid fevers, and other contagious or preventable diseases, the location and sanitary control of graveyards, slaughtering, packing and rendering establishments, and of public dumping-grounds, food adulterations, including swill-fed and glucose refuse milk, the effects of parks and of vegetation upon climate, of subsoil drainage and sewerage upon health and the death-rate, the sanitation of small cities and towns, etc.

In all of the above it has done an amount of work and secured results entirely out of proportion to its resources, for, like all such organizations in this country, the appropriations for its support have been inadequate, and it has been only by the personal sacrifices of its members, and the enthusiasm and devotion of its executive officer, that such results have been attained.

In its work the Board has promptly utilized all available agencies, and alike in the protection of our southern extremity from yellow fever, through its con-

nection and influence with the Sanitary Council of the Mississippi Valley, as in guarding our eastern boundary from imported small-pox, through the emigrant inspection system of the National Board of Health, it has demonstrated the feasibility of a public health service in entire consonance with any or all political theories, whether of 'States Rights' or of 'National Sovereignty'. Possibly this was to be expected of a State whose coat of arms bears both those mottoes. It is none the less gratifying, however, to discover an organization capable of defining State medicine in a cosmopolitan spirit, and thence to avail itself as quickly of the resources of the Federal treasury and national authority on the one hand, as of the moral and material support of a volunteer co-operation on the other.

The following report of Albert L. Gihon, M. D., representing the U. S. Naval Medical Staff, will be read with interest.

WASHINGTON, D. C., June 1, 1883

FOSTER PRATT, M. D., *Chairman, Section in State Medicine American Medical Association,*

Sir—In response to the questions propounded in your circular-letter of May 1st, addressed to the elected members of the Section in State Medicine, I beg to state

FIRST That the officers of the medical corps of the Navy are distinctively *health officers*. It is impressed upon them, when they enter the service, that their most important function is the preservation of the health of the personnel of the Navy as a necessary factor of its efficiency, and the regulations for the government of the Navy expressly impose upon them the duty of recommending, whatever in their opinion, may be conducive to this end.

Annual sanitary reports are required to be made to the Bureau of Medicine and Surgery under the following heads

(a) General hygiene, which shall include a report of the sanitary condition of the ship or station, accounts of epidemics or important cases of disease which have not previously been reported, together with such information or suggestions as may tend to the prevention of disease, or have an influence in the preservation of the health of the personnel of the ship or station.

(b) Topography, to embrace a description of the ports visited during each year, with such information as may be obtainable

1 General physical characteristics, relating to situation, soil, drainage, streets and buildings, etc.

2 Population—number and character of, customs, and habits of the people.

3 Climatology

4 Food supply

5 Water supply

6 Prevailing diseases and statistics of diseases and mortality

7 Establishments for the care of the sick

8 Education, general and professional

9 General remarks, including such recommendations or cautions as may be of service to other vessels visiting the port

EDITORIAL

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During the prevalence of epidemic or contagious diseases on foreign stations, especially in ports of the Gulf of Mexico, the West Indies, and the South Atlantic Station, medical officers shall forward to the Bureau, in accordance with the circular of the Secretary of the Navy of August 18, 1879, all reliable information relating thereto which they may be able to procure, consulting for this purpose the consular and health officers of the port affected.

In addition, the *Board of Inspection and Survey* of the Navy, through the medical officer belonging to it, is required to inspect and report upon the sanitary condition of every vessel going into and coming out of commission, the report embracing the following points: The average cubic air-space per occupant of every apartment, the ventilation, dryness and illumination of the officers' state-rooms, steerages, fore-castle, berths, decks, hospital and prisons, the ventilation, dryness and cleanliness of pantries, store-rooms, holds and bilges, the supply of fresh water and its probability, the abundance of the food ration and its preparation, the sufficiency and cleanliness of clothing and bedding, with the special provisions for the care and transportation of the sick and wounded, and for the emergency of the outbreak of epidemic and contagious diseases.

2d None

3d None

4th There are no specific regulations for the arrest of the spread of communicable diseases, this being left to the discretion of the medical officer of the ship or station acting singly, or of a board of medical officers in cases of unusual gravity. Small-pox, measles, and other exanthemata are isolated on the spar-deck. Upon the appearance of yellow fever on board ship the effort is at once made to get the vessel away from the infected port, and to remove both sick and well out of her, the belief being general among the medical officers of the navy that the only safety for the well is to get them out of the ship, that the sick can be removed, provided the bedding and clothing are not carried with them, with entire impunity to those among whom they are received, and with respect to the vessel itself, that a yellow-fever ship is always a foul ship, that foul ships, while often generating by their filth other epidemic diseases, have never developed yellow fever *de novo*, but that such a ship will become infected by communicating with a place where yellow fever is prevailing, and will disseminate it if removed to a locality where the sanitary conditions are bad and its contents—freight, food, baggage, or clothing—are taken out of her, while a clean ship may visit a fever port and, by vigorously abstaining from communication with the place, escape the disease. Absolute non-intercourse with sources of infection, which in the case of this disease are always believed to be exotic as regards this country, an effective quarantine and the use of dry superheated steam and sulphurous acid gas as germicides, are the means relied upon for the arrest of the spread of this and other communicable diseases. As a further measure in this direction, on stations where the compulsory inspection of public

women is in vogue, no men are allowed to visit the shore who are not known to the medical officers to be themselves free from venereal complaints.

5th The Surgeon-General of the Navy has recently extended the scope of the quarterly report of classified diseases occurring in the service, exacted from all medical officers who are heads of the medical department of every vessel, station and hospital by requiring statistical returns of etiology as far as this can be definitely established, showing the causative relations of inheritance, predisposition or antecedent illness, of climatic influences, local insanitary conditions, and of venereal infection, as well as the distribution of disease among the several grades of officers and men for each decennial period of age.

In this connection, I may be permitted to repeat what I insisted upon in my address as Chairman of this Section at its last meeting—that mere mortality returns are less important elements of vital statistics than detailed statements of the causes, character and number of disease occurrences in a community. The enumeration of births, marriages and deaths is an insufficient criterion of sanitary condition, for with the progress of medical science the deaths became less exact exponents of prevailing disease. The actual number of cases, their probable causes, and the number of days of duration of each, are the proper measures of the hygienic and economic disturbances of a population. Returns of this character are now tabulated and published annually in the report of the Surgeon General of the Navy. Another class of exhibits, which may be consulted at length in the same reports, might profitably be exacted of every medical examiner for life insurance, as they indicate the amount of health impairment, which does not come under the observation of the practitioner—that is, the physical disabilities of individuals, who, considering themselves well or affecting to be so, seek admission into the military service or solicit insurance policies or membership in beneficiary societies. The report just published shows that of 6,792 persons examined for the naval service during the year 1881, there were 1,967, or 29 per cent, or one among every three or four individuals registered as physically disqualified, the principal disabilities being—

Defects of Vision—436 or 25 per cent of those rejected, or 1 in 4 to 5 applicants
 Defective Development—411, or 21 per cent of those rejected, or 1 in 4 to 5 applicants
 Diseases of Digestive System—322 or 16 per cent of those rejected, or 1 in 6 applicants
 Diseases of Heart and Circulation—314 or 16 per cent of those rejected, or 1 in 6 applicants
 Venereal Affections—205 or 10 per cent of those rejected, or 1 in 9 applicants

With respect to the inquiry, "*How can medical men best promote sanitary progress?*" undoubtedly the first important step, before success can be hoped for from restrictive legislation, is the education of the masses in the essential facts of sanitary science. Ignorance of the danger of the violation of the laws of health induces antagonism where a comprehension of the evil sought to be combatted would have met with acquiescence. Compulsory vaccination is resisted because it is compulsory, the Contagious Diseases Acts are antagonized only on quasi-sentimental grounds, the social evil experiment of St. Louis was

assailed because the community did not comprehend the magnitude of the harm done by the diseases it disseminates when uncontrolled. People fear draughts, but are not afraid of foul air, and so close windows and ventilators to escape the former. When they are made to understand that foul air and moisture are the enemies of mankind, they will shun the unventilated church and theater, when they are taught that diphtheria and scarlet fever and typhoid are preventable diseases, they will welcome the ordinances which punish the dishonest plumber and the careless householder and establish restrictive quarantines, when they realize that venereal disease may and does enter the purest homes by a thousand unsuspected channels, they will join hands with the legislator, who would make its communication a social infamy and a punishable offense against the law, when they learn that the average of human life has been prolonged one-seventh in the course of a single generation by improved hygiene, they will give heed to the advice that will keep them well, rather than depend upon that which is to restore the health that has been needlessly wasted. Impracticable sanitarians, who find a sting in every sweet that human tastes crave and enjoy, encourage the resolve to brave the risk for the sake of the pleasure. The restriction of the dietary to a few plain, unpalatable simples, the uncompromising warfare against tobacco and alcohol in every shape, the unqualified denunciation of every form of relaxation and amusement, even to the latest novelty of bicycle riding, are instances of sanitary reform retarded by injudicious radicalism. Medical men can best promote sanitary progress by aiding in the dissemination of information as to the actual prevalence of disease, the established facts of etiology and prophylaxis, and the inevitable consequences of their disregard, and this can best be accomplished through sanitary associations and publications, especially in the secular press, which has come in this country to be for the citizen what the school is for the child, with the advantage for the adult that the lessons are taught in a more rational, agreeable and effective manner.

PROGRESS OF YELLOW FEVER—Advices from Pensacola to September 4th represent the city as continuing healthy and free from the fever. Three new cases had been reported at the navy yard, and one death. The death was that of a Dr. Bosso, who is represented by the newspapers as having had a specific for the cure of yellow fever. But it seems to have failed in his own case. It is claimed that several cases of the fever have occurred in the village adjoining the naval reservation. News comes from San Francisco that cases of yellow fever have occurred at Mazatlan, in Mexico.

SMALL POX—This disease still lingers in New Orleans, there having been nineteen deaths from it reported during the week ending the 18th of August.

SINCE our last issue we have observed nothing new concerning the progress of the cholera in Egypt, except that it has so far subsided that the quarantine restrictions have been removed along the Suez Canal and commerce restored.

DOMESTIC CORRESPONDENCE

THE NAVAL LABORATORY—ERROR CORRECTED

1932 Chestnut St., }
PHILADELPHIA, Aug. 29, 1883 }

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

In No. 6, August 18, p. 192, of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, received the 27th, is a brief obituary notice of Dr. Benjamin Franklin Bache.

It is stated in it that "he established the Naval Laboratory," etc. This is an error. It is of little significance in itself, but it is interesting in connection with historical accuracy and the immense importance of truth, which we all profess to respect.

The Naval Laboratory at the Naval Hospital, Brooklyn, N. Y., was started by myself in the autumn of 1845, five years before Dr. Bache was connected with it. Its origin is due to a small circumstance. At that time medical supplies of all kinds were furnished to the navy on a contract awarded yearly to the lowest bidder. Late in a day of October or November, just before leaving the hospital to visit New York, I observed, while giving some instructions to the steward in the dispensary, that the laudanum bottle was very nearly if not entirely empty. Thinking it would be imprudent to permit a hospital containing from seventy to eighty patients to be without laudanum during the night, I put into my pocket a pint bottle and called at the shop of the contractor, a leading wholesale druggist of New York. I requested a clerk to fill my bottle. The young man innocently asked, "Do you get the shilling or two shilling laudanum?"

That simple question was the foundation of the Naval Laboratory. An examination of the preparations in the dispensary the next day satisfied me that the contractor furnished many other one shilling and two shilling articles besides laudanum. On my representation of the circumstances to the Chief of the Bureau of Medicine and Surgery, Dr. Thomas Harris, I was authorized to make all preparations used in the hospital. After an experience of a few months, I proposed to Dr. Harris to enlarge our operations so far as to be able to supply the dispensary of the navy yard and all vessels fitting at New York. I argued that the plan could be realized without augmenting our working force, and that we would be confident that all preparations issued from the hospital were pure and of the strength prescribed by the Pharmacopoeia of the United States. The proposition was adopted, and was found in a short time to work so satisfactorily that all official preparations were made in the laboratory of the hospital for the whole navy.

After four years' service, I was relieved from the charge of the hospital by Dr Waters Smith, Sept. 1, 1847. A board of medical officers, after examination, reported substantially that the hospital and laboratory were in a satisfactory condition. I enclose a copy of an official letter, in reference to the subject, addressed to me by Dr Harris.

Dr Smith continued the work of the laboratory, adding from time to time to its apparatus and facilities until his death, in August, 1850. In September of the same year I was again placed temporarily in charge of the establishment, hospital and laboratory, and held it until some time in December, when I was relieved by Dr Bache, immediately after his return from a cruise on the coast of Brazil, where he had served as surgeon of the fleet.

Dr Bache took great pains to improve and extend the laboratory department. Under his skillful management it became an admirable pharmaceutical manufactory. When the term of his service as surgeon of the hospital had expired, 1853, he was relieved from the care of the hospital and appointed Director of the Naval Laboratory, which was then made a station or post distinct from the hospital. He was placed on the "retired list" Feb. 1, 1863, but was still continued Director of the Naval Laboratory until September, 1871. During the rebellion he performed the duties of the office, which were arduous and important, to the entire satisfaction of the Government, and therefore with credit to himself.

This brief account of the origin and growth of the Naval Laboratory is, I think, enough to show that the statement that Dr Bache "established" it is not quite correct.

There are other inaccuracies in the notice. If the official record is reliable, Dr Bache was born February 1, and not February 7, 1801, as stated. The Navy Register does not show that he was at any time "on furlough." He was a resident in Gambier, Ohio, in 1841, "on leave," and I conjecture that it was about this time that he was professor of natural philosophy and chemistry in Kenyon College. Dr Bache, I believe, never claimed to teach "the natural sciences," or any department of natural history.

We have in the navy, Francis M. Gunnell, Medical Director, and Robert H. Gunnell, Passed Assistant Engineer, but none named J. N. Gunnell, who is credited with forwarding the notice. This may be an erratum of the printer.

If the testimony herein submitted conveys sufficient evidence that the error indicated is manifest, I request you to correct it in any manner that may seem to you proper, and oblige yours,

Very truly,
W S W RUSCHENBERGER

THERAPEUTICS OF TYPHOID FEVER.

A recent editorial in "*The Medical Record*" (August 11th) calls attention to the investigations of Klebs and Eberth into the pathology of typhoid fever, together with the announcement that Prof. Henri Desplats, of Lille, had made the discovery that

salicylate of bismuth is "the great desideratum" in the treatment of that disease, and concludes as follows: "In short, the perusal of this article seems to justify the hope that in the *salicylate* of bismuth we have a new medicament of great antiseptic value."

As it is by experience alone that the truth or falsity of a theory can be demonstrated, it is to be hoped that some one having the time and opportunity will prove whether Prof. Desplats's assertions are true or not.

In this connection, however, it is desired to call the earnest attention of the profession to the claim of *sulphurous acid* in the treatment of typhoid fever. A course of experimentation with the drug, extending through a period of more than twenty years, in almost every variety of zymotic disease, convince the writer that its power over and adaptability to the medication of this variety of ailment has not been recognized and appreciated by the majority of the profession.

That it is capable of modifying both the violence and duration of typhoid fever, has been demonstrated to my own and my patients' satisfaction so many times that without the drug I should approach the treatment of a case of that disease with considerable trepidation. Given in moderate doses during the period of dry skin and parched brown tongue, its effects are often magical.

This disease, however, is but one of the many in which *sulphurous acid* may be used both as a remedy and a prophylactic. *The acute infectious diseases are all modified, aborted, or wholly prevented by its use.*

While recognizing the latitude of the above declaration, the facts and proofs of its truth, in the writer's possession, fully justify it.

So fully is the writer persuaded of the immense value of this drug that it is his intention, if opportunity shall permit, to submit to the profession the results of twenty years of critical study of this drug.

Most of the experiments have been made with bisulphite of soda, though in a few cases a solution of sulphurous acid diluted with glycerine has been employed, giving equally as good results, but not as well tolerated by the patient.

Let those who wish to demonstrate its utility use a saturated solution of bisulphite of soda in water, giving one teaspoonful every two or three hours until the system is brought fully under the influence of the drug; afterward one dose every six hours will be sufficient to maintain its effect.

D. A. SHEFFIELD, M.D.

APPLE RIVER, ILL., Aug. 30, 1883

REVIEWS

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR THE YEAR 1883. No. III. Vol. VIII.

This is a volume, or rather part of a volume, of 138 pages, on good paper and fair type. It contains the record of proceedings and the reports and papers presented at the annual meeting of the Society in Kalamazoo, May 9 and 10, 1883. After the record

Your firm is understood to prepare, according to a formula the nature of which you will not disclose, the article called "Hostetter's Bitters," in very large quantities, and to sell it to dealers in all parts of the United States

Clifford Richardson, Esq., assistant chemist of the Agricultural department, has done me the favor to make a careful analysis of a bottle of the "bitters," and finds it to contain as follows

Absolute alcohol	32 per cent
Water	64 per cent
Extracts, only	4 per cent

He says it is made from a strong alcoholic liquor flavored with various essential oils, as oil of anise, coriander, etc., and contains some vegetable bitters, such as gentian, cinchona, etc. It will be seen that the bitters contain at least 65 per cent of proof spirits, which will be equal to about 82 per cent of ordinary whisky at 80 per cent proof, obviously much more spirits than is absolutely necessary to hold the other ingredients in solution

Containing, as it does, no deleterious drugs and only 4 per cent of anything like a drug, I should probably be entirely justified in deciding outright that one who sells it for any purpose is a retail liquor dealer within the meaning of clause four of Section 3244, Revised Statutes, which reads as follows

"Retail dealers in liquors shall pay twenty-five dollars. Every person who sells or offers for sale, foreign or domestic distilled spirits or wines in less quantities than five wine gallons at the same time, shall be regarded as a retail dealer in liquors"

Such a ruling would seem to be supported by a letter of the honorable Assistant Secretary of the Treasury, dated January 8, 1883, as follows

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D C, Jan 8, 1883 }

Sir—This department duly received your letter dated Aug 26 last, relating to a seizure in your district of two cases of Hostetter's Bitters imported there from Portland, Oregon

It appears from your letter that on being requested by an officer of this department to seize the bitters, you "peremptorily refused," and thereupon that he made the seizure and delivered the merchandise into your custody, in which it now remains

The importers claim that the bitters are a patent medicine, not a distilled spirit, nor wine, and that they, therefore, may be admitted into Alaska under the present regulations

A letter from the Commissioner of Internal Revenue, dated Dec 6, 1878, states that such bitters contain a sufficient quantity of alcohol to hold the other ingredients in solution, and that they are sometimes sold by the glass by retail liquor dealers, and that it is stated that the merchandise is sold "by the drink" in saloons at Sitka

The department is of opinion that, notwithstanding they may be classified under the internal-revenue laws as medicinal bitters, they should be excluded from Alaska under the executive order of February

4, 1870, forbidding the importation of distilled spirits into that Territory

The courts have decided that certain bitters, substantially similar in character, imported into the United States are dutiable as distilled spirits

You will take action accordingly, and in future seize importations of such bitters into Alaska, and dispose of them in the usual manner

The bitters already imported and in your custody, as aforesaid, may be released, provided they shall be sent out of the Territory at the expense of the claimant Very respectfully,

H F FRENCH,
Assistant Secretary

COLLECTOR OF CUSTOMS, Sitka, Alaska

The last clause of Section 3246, Revised Statutes, is the only other provision of positive law bearing upon the subject That clause is as follows

"Nor shall any special tax be imposed upon *apothecaries* as to wines or spirituous liquors which they use exclusively in the preparation or making up of medicines"

It is, to say the very least, doubtful whether that provision in any way applies to your bitters, but inasmuch as this bureau has for many years classified the preparation as a proprietary medicine and collected stamp tax upon it as such, I cannot avoid treating the subject raised by the questions you propound in a manner somewhat different from what I probably should if the point were one of first impression

In view of the premises, the question of whether dealers in your bitters should be required to pay special tax as liquor dealers seems to me should depend upon the use made of the article sold If in good faith it is, in fact, sold as a medicine only by a dealer, and especially if sold to fill a *bona fide* prescription given by a reputable physician precisely as other prescriptions are given and filled, such dealer will not be required to pay the special tax, and he will, it is presumed, feel no uneasiness upon the subject so long as he is conscious that he is certainly selling it only as a medicine On the other hand, if a dealer sells it as an alcoholic beverage, stimulant or intoxicant, and especially if he does so habitually, there is no reason why he should not be compelled to pay the special tax imposed by law upon all liquor dealers, for in such a case he is really selling it for the whisky it contains, and the other ingredients are sold only incidentally Whether a dealer falls within one category or the other will depend upon the facts, and the revenue officers, while claiming no tax from dealers in genuine medicines, will endeavor not to be deceived by any device which may be resorted to by any dealer who may have an intent to sell it merely as an intoxicating beverage and who may wish to cover up that intent and evade the law

As all compounders and rectifiers of spirits and all wholesale and retail liquor dealers are required by law to pay special taxes to the United States, it is the manifest duty of this office to see that they do so

No mere medicine is any longer taxable in any form, but to draw the line nicely, and fix definitely where the medicine may end and the alcoholic bev-

erage begin, is a task which has often perplexed and still greatly perplexes revenue officers, and especially where a preparation contains so large a proportion of alcoholic spirits as yours does. This difficulty is not relieved in this case by the showing made by the analysis.

The medicinal or vegetable ingredients used do not appear to so predominate as certainly to give an absolute medicinal character to the preparation. Indeed, it might be concluded, without doing much violence to the probabilities of the case, that the distilled spirits are, proportionately, so large as not to be materially affected by the other mild ingredients, and that, therefore, while the preparation may, in some cases, be useful as a medicine, it may also be used very well as a mere "drink." The bitters do not present the case of a preparation like laudanum or camphor, in which, although the greater proportion of distilled spirits, yet the other ingredients are of such a powerful and predominating quality as to give character and unfit it for use as a beverage.

It is well known that various compounds, composed for the most part of alcohol or distilled spirits, are upon the markets of the country, and that they are especially adapted and probably designed for sale to the minority in those communities where so-called local option laws prevail, or where the sale of distilled spirits is otherwise forbidden by statute. Such compounds also find purchasers among a small class who prefer to drink stimulating or intoxicating beverages under some name less unpopular than that of whisky.

These preparations usually sail into market under a medicinal flag, and while the law was such as to enable them to be taxed by stamps under a classification as proprietary medicines, the tendency or policy in this office was toward a liberal judgment in the direction of so classifying them, and especially where a formula, by which they were claimed to be made, was presented, accompanied by an affidavit that they were made according to it, and that they were designed, in good faith, to be used only as medicine. The result of such a tendency, it is true, was to get the largest amount of revenue for the Government, at the same time it gave a greatly increased salable and mercantile value to the preparation so classified. Though an inquiry was made in each case, probably it was not so strict as it should be now, since the law is changed, and since this office has information that such preparations are being extensively used in a manner different from what was stated by their makers to be designed at the outset.

It may well be that a compound can be used both as a medicine and as a beverage. When used in good faith as a medicine only, though it may contain distilled spirits, dealers in it, under such circumstances, will not be held liable to pay the special tax, but suppose it is not only capable of being used as an intoxicating beverage, but also that it is in fact sold and used as such by individuals or by a large class of a community, surely the law, as well as justice to the regular liquor dealer who pays his tax, requires that the special tax shall also be collected from those who make and from those who thus sell such compounds for such a purpose.

If Hostetter's Bitters is in any locality sold and used as an alcoholic beverage, stimulant, or intoxicant, those who thus sell it will be liable to pay the special tax. The circumstance that it is used only as a medicine in one community will not exempt from liability to tax those dealers in it in any other locality who may, in fact, sell it as an alcoholic beverage. Each case must depend upon its own facts, and hence this office cannot now lay down any other general rules than such as are stated in this letter, and in a circular recently issued from this office, No 268, dated July 16, 1883.

A copy of the circular is enclosed, and your attention is directed to it. It was called out by numerous letters addressed to this office, and in view of the law, as I construe it to be, since the repeal of Schedule A, following Section 3437 of the Revised Statutes. That circular will be adhered to, and you will observe that while a compound is not regarded as a medicine simply because it is called so, nor unless the name and use of it as a medicine agree, still the circular advises collectors to regard as presumptively medicine those preparations heretofore paying stamp taxes as such, but that if in fact, they are now sold and used as alcoholic beverages, the presumption that they are medicines is destroyed in such instances. It may also be added that so studious was this office to avoid a duplication of the special taxation, that it also instructed collectors that where parcels of a proprietary preparation had in fact been made and, under the policy then prevailing, stamped prior to July 1, 1883, Circular No 268 would not apply to such goods as were actually made and stamped before that date. This clause of the circular was perfectly plain, though some designing persons have attempted to misrepresent its intent and meaning.

District attorneys and collectors will, no doubt, carefully investigate the facts in each particular case, and will be able to discriminate between a case where a preparation is used only as a medicine in good faith and a case where a preparation is called a medicine because of some mercantile advantage in doing so, but which is in fact used as an intoxicating beverage.

I have been at pains to state quite at length the position of this office, and you will observe that I do not decide whether, in the abstract, your preparation is a medicine or not.

Should I hold it to be a medicine, I should probably do violence to an almost irresistible tendency of the mind to conclude that no genuine medicine needs so much whisky and so few drugs in it, unless under very unusual circumstances. On the other hand, should I decide that it is no medicine at all, I would be confronted by a ten-year' quasi recognition by this office to the contrary, as well as by the practice of many people who use it as such.

Since Circular No 268 was issued I have been careful not to decide directly whether a preparation was a medicine or not, unless I had before me a report from the collector stating all the facts. Such a report I have not in this case.

My efforts will be directed to the ascertainment of the facts as to the use to which your preparation is

put, for upon the character of its use in a given case will depend the question of the liability of the dealer to pay special tax

The courts have decided one case since Circular No 268 was issued, viz, that of the United States vs Frederick Cota, which was tried before Judge Withey of the western district of Michigan

The views of the learned judge in that case were identical with those entertained by this office as to the law in the premises. A full report of the case as found in the Internal-Revenue Record is as follows

United States District Court, Western District of Michigan, Northern Division

UNITED STATES VS. FREDERICK COTA

Before Hon S L WITHEY, District Judge

Information for carrying on the business of a retail liquor dealer without the payment of the special tax. Trial, July 24, 1883

The evidence in this case showed that the defendant kept a boarding-house and had a bar where he sold cider and an article known as "Reed's gilt edge tonic," by the glass or drink, to all persons who called for the same, that the tonic was sold in considerable quantities, by the glass or drink, to persons who drank it as a beverage as other liquors are drank, and that persons became intoxicated thereby, that said tonic was generally sold at saloons and drinking places in that vicinity, and contained a large percentage of distilled spirits

It was claimed on the part of the Government that the evidence showed that this tonic was "compound liquors," within the meaning of the *third* subdivision of Section 3244, U S R S, and that the manufacturer of such compounds was liable to pay a rectifier's special tax, and that the defendant was guilty under the information for selling the same in the manner shown by the evidence

The court charged the jury in substance, that if the article sold was a medicine and contained spirits simply to preserve its medicinal qualities and was sold and taken as a medicine in good faith, that the defendant should be acquitted. But if the jury found from the evidence that the article was a compound containing such a quantity of spirits as to be intoxicating, and was sold by the defendant as a beverage, he knowing its intoxicating quality, and was drank by persons *not* as a medicine but as a *beverage*, because of its intoxicating and stimulating qualities, then, no matter by what name it was known or called, the defendant was guilty as charged

The jury returned a verdict of guilty, and the defendant was fined \$300 and sentenced to imprisonment in the custody of the marshal for thirty days

It is not desired to exact a dollar in taxes not fairly due, nor to claim any tax from dealers in any preparation which is fairly a medicine and in good faith used as such, but we do not doubt that all the Federal courts will hold views similar to those announced by Judge Withey, and, unless the special taxes are paid without question, I desire the courts speedily appealed to, wherever there are fair and reasonable grounds to believe that a preparation containing a large proportion of distilled spirits is sold

and used as an intoxicating beverage, and not *bona fide* as a medicine

The law is my only guide in such matters, and in such cases I regard it as requiring the payment of the tax, and I have no option but to collect it

As to the suggestion that you should be repaid the amount you have heretofore paid the United States upon your bitters as a proprietary medicine, only a few lines need be added. There has never been any disposition on my part to enquire whether your preparation was used or sold otherwise than as a medicine previous to July 1, 1883. I have your sworn statement that it was before that date a proprietary medicine only, and you voluntarily, and from choice, had it classed as a medicine, and paid the stamp tax upon it as such, without question, up to that date. The Government took you at your word, and still does so as to everything done before July 1, 1883

The whole question was carefully considered when Circular No 268 was framed, and it was not doubted either by this office or by the honorable Secretary of the Treasury, whose advice was asked upon it, that all claims for a refund of such taxes would be wholly unfounded, nor was it doubted that the makers of such compounds would be estopped from claiming such refund by their own assertions that their preparation were medicines and by their voluntary payment of the stamp tax as such

Since July 1, 1883, if the preparations have also in fact, been sold and used as alcoholic beverages, special taxes as liquor dealers will have to be paid by those who sell them as such, and who by doing so pervert the original purpose of their preparation, as stated under oath by the makers of them. Whatever may have been done prior to July 1, 1883, when the article was taxed as a proprietary medicine, and was as I assume, in good faith so used, *now*, in case where the original purpose of the preparation is perverted, and instead of being used as a medicine it is used as an alcoholic beverage or intoxicant merely the seller of it in this manner must be treated as a liquor dealer, and taxed accordingly

It is argued that Congress by repealing Schedule A whereby stamp taxes were removed, meant to relieve such articles altogether from taxation. It is certainly true that Congress did repeal the law laying a tax upon medicines, but it is equally true that Congress did not remove the tax from retail liquor dealers, and our efforts must be directed to ascertaining whether, as a matter of fact, a dealer *bona fide* sells medicine and is exempt from tax, or sells alcoholic beverages and is liable to it, our whole difficulty arising from the fact that such preparations are susceptible of use both as a medicine and as a "drink." You can therefore see how, acting in good faith, your customers can determine, each for himself, whether there is a liability to pay special tax as liquor dealers—in other words to "take out licenses"

When a preparation, considered with reference to its ingredients, may be one thing or another, according to its use, I will let the use give character to it. If used or administered *bona fide* as a medicine, as a medicine it will be treated, but if persons ignore its medicinal properties and sell it to be drank as an in-

toxicating beverage, the act should be regarded as a retailing of spiritous liquors, and the seller made to pay the tax accordingly. This seems to me to be the true rule, and an article containing so little that is even nominally medicinal as yours does ought and will be subject to very close scrutiny as to its use.

Very respectfully,

WALTER EVANS,
Commissioner

Messrs HOSIETTER & SMITH,
Pittsburgh, Pa

The following items of interest are clipped from the *Daily Times* of this city, just as this number of THE JOURNAL goes to press —[ED]

YELLOW FEVER —SPREAD OF THE SCOURGE

NEW ORLEANS, Sept 6 —[Special]—A special to *The Times-Democrat* from Pensacola announces thirteen new cases of yellow fever at the navy-yard, three of whom are colored, and seven deaths including Charles Grady, boat-keeper for the pilot boats, and two privates of the United States marines, who died at the marine hospital.

HISTORY OF THE EPIDEMIC

A letter from Pensacola navy yard in regard to the yellow fever has been received at Washington which says complaint is made that the navy department has been utterly indifferent to the welfare of the command and that no amount of argument on the part of anyone would have served to modify in any particular the policy of the department toward the Pensacola yard. The writer says "We are here to stay so long as our services are required, and one and all stand ready to face the situation with strong hearts and cheerful courage. We are determined to make the best of everything and trust in Providence to carry us safely through the season of sickness. I must admit, as the summer advanced and no disease of a contagious character made its appearance, I felt encouraged and believed we were going to escape a visit of the terrible scourge. We all felt confident that for once yellow fever could not come among the force stationed here. Every attention had been given to the sanitary condition of the yard, Dr Owen making personal inspection, and he pronounced the quarters in the most excellent sanitary condition. We believed the yard to be entirely free of fever germs, and the command in perfect health, but we were deceived.

Less than two weeks after our inspection a suspicious case of fever made its appearance in the garrison. It was on the morning of August 12 that a private in the marine corps, named Flaherty, went to the officer of his command and said he was sick. He was ordered by the doctor to go to bed. At that time the nature of the complaint was not apparent, and the sick man went to the barracks until the symptoms became more pronounced. It was, to our horror, yellow fever. The bedding was destroyed, and every precaution taken at once to kill the germs. The case proved fatal three days after. Corporal Benson was the next man taken sick, and then Private Barger, who lived only four days. Barger and Flaherty

were, I am told, very abstemious men, and were exceptional in their conduct as well as careful about their health. Where or how Flaherty got the disease is a mystery to every one here. The case of Barger is even a greater mystery. After various theories had been advanced it was found that the quarters occupied by the marines were infected, and that in 1875 there were some cases of fever in these quarters. Notwithstanding the care taken to avoid the infection, the removal of the command from the marine barracks was followed by two cases of fever. There was no inconsiderable amount of anxiety on the part of the residents of the yard when they found that yellow fever had made its appearance among the marines. The marine guard was promptly quarantined, and duty of all kinds was suspended, and it was with feverish expectation that developments were awaited.

Dr Owen was taken sick Thursday, August 16, and immediately went to his bed. This left the yard without a surgeon. Poor Owen's case was indeed a sad one. He had worked day and night until he was completely tired out and broken down. The very day he was taken sick his wife and family were to have gone north. Their plans had been arranged, and the evening train was to have carried them away. The illness of the doctor put a stop to all thought of leaving the yard. A strict quarantine was placed against the yard, and egress was at once ended. Owen was without medical treatment for two days. When it became evident that his case was assuming a very serious form, authority was requested to employ a civilian physician. Dr Hargis, an old practitioner from Pensacola, was employed at a salary of \$100 a day. Owen died on Wednesday, the 22d of August, at noon, and was buried at once.

Mrs Owen was taken sick Thursday. She lived but a few days. The poor woman was carried to the grave at the dead hour of midnight, her little children fast asleep as the lifeless body of their mother was being borne through their room on the way to burial. A sadder, more heartbreaking occurrence than that has seldom taken place. The youngest child is an infant less than four months old, a bright, splendid boy, the other children, three in number, are left to the care of no one. Freddie, the oldest, was taken sick on the 28th of August. Paymaster Brown, who has since died, his wife, and daughter, were all sick. Lieut Whipple was taken down with the fever on the 23rd, and was cured by Dr Bosso (who has since died), whose treatment had been more successful than that of the regular practitioners.

There have been upward of forty cases on the reservation, the deaths numbering fifteen. I am told that early this year Dr Owen predicted that yellow fever would make its appearance on the reservation during the summer season, for the reason that articles infected with the disease had been brought here from Pensacola. The government steamer *Lynch* is simply a passenger boat for the residents of Wilmington and Wolsey. It made the trip a week to Pensacola, loaded down with passengers, and it was the only one that did so. The rest of the boats are not used for this purpose.

addressed a communication to the commandant of the yard, warning him of the danger of too frequent intercourse with Pensacola, and advised him to restrict the travel and reduce the frequency of the launch trips

DR RAUCH'S REPORT

SPRINGFIELD, ILL., Sept 6 —[Special]—Dr John H. Rauch, as executive officer of the Sanitary Council of the Mississippi Valley, in his monthly report says that during August the supervision of the river and rail inspection service by the Executive Committee of the Sanitary Council has been confined to New Orleans, Vicksburg (at Fort Adams), and Memphis (at President's Island). At New Orleans sixty-five steamboats and other river craft, with an aggregate capacity of 71,816 tons, and carrying 2,684 officers, crew and passengers, were inspected and fully provided with the certificates of the Sanitary Council. On the Illinois Central and Louisville & Nashville railroads, at the same points, there were inspected 139 freight trains, comprising 1,911 loaded and 1,523 empty cars, together with their crews of 834 persons. At the inspection stations at Fort Adams, below Vicksburg, and on President's Island, below Memphis, an aggregate of 228 river craft, with a capacity of 224,440 tons, and carrying 15,028 persons, were inspected. These boats were found in good sanitary condition, and no suspicious illness appeared among those on board, although there were a number of cases of the malarial fevers of different forms, mainly intermittent. An aggregate of 770 ocean vessels, river craft, and freight trains, with a capacity of 893,231 tons, and carrying 27,888 officers, crew and passengers, have been inspected under the supervision of the Council since July 1, 1883. With the exception of one suspicious case in the early part of last month, in Jackson county, Mississippi, on Fort Bayou, near the coast, there has been a very unusual absence of anything like yellow fever in the area in which the inspection service is maintained. In the exceptional case alluded to, the Mississippi State Board of Health acted upon the hypothesis that the disease was yellow fever, although the diagnosis was conflicting and the weight of opinion against that conclusion. An inspector was at once put on duty in the district, the locality was placed under a quarantine of isolation for fifteen days, disinfection was resorted to, and nothing further of a suspicious nature has since developed. New Orleans has not been so free from alarm, or cause for alarm, during the corresponding months of many years as during the sixty days just closed.

NEW ORLEANS MERCHANTS

NEW ORLEANS, Sept 6 —[Special]—A meeting of the Chamber of Commerce, Produce Exchange, Mechanics', Dealers', and Lumbermen's Exchange, and other commercial bodies of the city, was held to-day to consider the non-intercourse regulation of the Board of Health, which prohibits all vessels from ports where the yellow fever prevails, whether these vessels are infected or not, from coming up the river. The Board of Health met later in

the evening, passing a resolution wherein they asked the Governor to repeal his non-intercourse proclamation on the 15th of the present month, and re-establish the quarantine formerly prevailing of ten days against vessels coming from Vera Cruz, Havana, and all infected ports. They recite that the summer is near gone, that the city is perfectly healthy, and that any infection or outbreak of fever here is near impossible. They believe, therefore, that a ten days' quarantine will be sufficient to protect New Orleans. As the Governor holds that he must carry out all the resolutions of the Board of Health, an order abolishing the non-intercourse system will probably be issued within a few days.

SIR SPENCER WELLS has been elected an Honorary Fellow of the Physico-Medical Society of Erlangen.

HEALTH OF CONNECTICUT —The following report, concerning the prevalence of diseases in the principal cities of the State, has been furnished from the office of the Secretary of the Connecticut State Board of Health —[Ed]

State Board of Health Sanitary Report —By Dr C W Chamberlain, Secretary

MORTALITY IN JULY

	Hartford	New Haven	Meriden	Waterbury	Bridgport	Norwich	New London	Middletown	Killingly
Total deaths	132	186	40	57	68	47	20	23	13
Monthly death rate	30	28	22	27	22	21	9	20	9
Zymotics	90	80	21	30	36	14	6	6	0
Infantile	75	110			44			9	
Nervous diseases	12	17	7	6	2				1
Heart diseases	3	7		3	4		2	1	1
Scarlet fever	1	3		2		1		2	
Typhoid fever		2		4					
Typho malarial fever		1				1			
Malarial fever	2	2	1				1		
Diphtheria and croup	20	4			2				
Measles	2			1		2			
Whooping cough		3				2			
Infantile diarrhoea	56	64	15	20	26	7	4	3	3
Diarrhoea and dysentery	8	3	5	4	2				
Consumption	3	10	2	4	7	4	2	3	1
Pneumonia and acute lung	4	5	2		1		1		
Old age	3		1						
Railroad accidents	3								1
Accident and violence	1	10	1	1	2	2	2	2	
In public institutions	10	14					2		

The leading type of disease during the month has been, as usual, infantile diarrhoea, which has persisted to an unusual degree, when the comparative coolness of the weather is taken into consideration. Hartford still maintains the place at the head of the column of the monthly rate proportion of zymotics and infantile deaths, although in the last report New Haven is about the same. The comparative mortality is not so much greater as in previous years, as this is always a season when a high death rate among children is expected. The persistency of diphtheria, which is so clearly a filth disease, so far as its local causation in Hartford has been traced, appears to be due to the want of traps under house fixtures, faulty plumbing, unventilated house drains, and unventilated sewers. The need of an ordinance

to fix a sanitary standard, at least, for all new tenement houses, is being emphasized every season. Diphtheria does not thus persist without a cause. If there could be an ordinance passed compelling all house drains to be ventilated, it would improve the sanitary condition of the city greatly, but if this be too radical a step the future at least can be guarded by proper provisions for all new buildings. Many cities have such regulations, and also many villages, and the results are more than commensurate to the expense and trouble involved. The mortality from infantile diarrhoea in New Haven has been very carefully investigated by Dr Lindsley, the efficient health officer of that city. He finds that the greatest part occurs in streets that have no sewers, where cesspools and vaults store up the excrementitious filth, and thus render it possible to again reach the system through polluted air or water. To a considerable extent this is also true of Hartford.

Throughout the State, generally, about the same relative frequency of infantile diarrhoea and diarrhoea and dysentery, among adults, in comparison with other diseases, is reported, as the table indicates. The greatest prevalence is in the more densely populated districts. The country is comparatively free, that is from infantile diarrhoea. There has not been as much cholera morbus, but dysentery has appeared much earlier than usual, due probably to the cold nights.

Malarial diseases are reported as unusually prevalent in places like Manchester where they have more recently appeared, while in the places where they first appeared but little prevalence is noted, and the deaths from typhoid fever exceed those from all forms of malarial fever. Still, even in these places, there have been quite a number of cases of acute intermittent fever which has not been noticeable here before for several years. Upon the whole, however, the malarial influence appears to be waning very decidedly, and its effect upon other types of disease less marked. The sale of quinine at the drug stores has rather decreased in comparison with that of former years, as far as I can learn. The progress into new territory is slow, but our towns report cases. Hampton, in Windham county, reports a few cases. This is one of the hill towns, with little swampy land comparatively. Several cases are reported from Watertown, Naugatuck, Ironrope, Haddam, Suffield, Windham and Westport. But in general malarial diseases occupy a much less prominent place, while typhoid fever is increasing in frequency.

Diphtheria has already been mentioned with reference to its persistence in Hartford. Cases are reported from Westport, one fatal, also quite a number of cases of tonsillitis, which has been unusually prevalent for the season when there are usually few if any cases. South Manchester, Manchester, Plainville, Talcottville, report cases of diphtheria, and several other localities a case or two. But very few cases of scarlet fever are mentioned, one fatal case from Canaan is reported.

Whooping cough has been quite prevalent in several places. Westport, New Canaan, Monroe, and Windham mention the disease, while it appears to be

almost epidemic in Suffield and Greenwich. A few localities mention measles seven cases in one family are reported, Naugatuck, Greenwich, New Canaan, Westport and Suffield, among others, report cases. Comparatively, however, the cases are very few.

In addition to the fatal railroad accidents in the table, three are reported from Plainville. Several cases of drowning are also reported.

The sanitary history of the month, while indicating plainly the loss of life from the neglect of sanitary laws, and also as a consequence a needless waste of life, and thus unfavorable, is not much worse than previous years. From such plain lessons as it gives, our power to control to a great extent the ravages of diseases that destroy many more lives than the dreaded cholera is repeatedly demonstrated.

FROM the following, taken from the *Canada Lancet*, it will be seen that our Montreal friends are not in perfect accord. "The Victoria Medical School, Montreal, which is in affiliation with Victoria College, Cobourg, has been in successful operation for several years, but a strong rivalry prevailed between her and the Laval University medical school. Instructions were issued by the authorities of the church that Laval should be supported. The professors and students of Victoria continued to act contrary to the spirit of the official declaration. An order was then issued to the Sisters of Hotel Dieu to refuse admission to all professors and students, except those of Laval. The Sisters appealed to Rome, and the professors to a committee of provincial bishops. The latter have decided that no Catholic can conscientiously form part of Victoria School or attend lectures there, and those who do so cannot be admitted to the sacrament of the church, and the former have been again ordered to close their doors to professors and students of Victoria. This mandate effectually disposes of the Victoria School of Medicine, which is much to be regretted, as the school was doing a good work, and was, besides, a means of stimulating healthy rivalry in medical teaching. Just as we go to press we learn that a cablegram has been received from the Pope, ordering the Victoria school to be carried on as usual for the present."

At the semi-centennial celebration of the McGill Medical College, Montreal, in October last, a gentleman offered \$50,000 if, by August 1st, 1883, an equal sum was raised, in commemoration of the late Dean, Dr G. W. Campbell. This has been done, and Hon. D. A. Smith has given to Dr Howard a check for \$50,000, to be known as the Leachonil endowment. Mr. George Stephenson has given \$50,000 to the General Hospital for a memorial wing to Dr Campbell. —*Medical News*

WE learn from news in the daily press that the date of expiration of the term of the Surgeon General of the Navy is in dispute. In 1879 there was a vacancy in the office, and on August 1st Medical Inspector Wales was appointed to the place, but did not receive his commission until January 20th, 1880. The office is held for four years. His appointment was at that

UNIVERSITY OF PENNSYLVANIA, MEDICAL DEPARTMENT

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RENAL DISEASES AND DIABETES, WITH PRACTICAL EXAMINATION OF URINE by PROF TISON
NERVOUS DISEASES AND ELECTRO-THERAPEUTICS,
by DR S WEIR MITCHELL and DR SINKLER at the Orthopedic Hospital
CLINICAL SURGERY, by PROF ASHHURST
OPHTHALMOLOGY, by DR S D RISLEY
DERMATOLOGY, by PROF DUHRING

OTOLOGY, by PROF STRAWBRIDGE
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ORIGINAL ARTICLES

ON EARLY TAPPING IN CASES OF ASCITES

BY AUSTIN FLINT, M D

[Read at the meeting of the Section on Medicine of the British Medical Association in Liverpool August 2 1883]

MR PRESIDENT AND GENTLEMEN The subject which I have selected for a short paper cannot, perhaps, be said to belong in the higher regions of pathology and practice, but it is one which, as it seems to me, has considerable material importance.

Most writers on practical medicine at the present time, as in the past, recommend tapping, in cases of ascites, as a last resort, to be employed only when the dropsical accumulation has occasioned an alarming interference with respiration, and after other measures of treatment have proved ineffectual.¹ The practice of most physicians now, as hitherto, I suppose to be in accordance with this recommendation. Many years ago I was led by reasoning and by clinical observation to advocate tapping early in cases of that affection. In 1863 I communicated for the *American Journal of Medical Sciences* an article entitled "Clinical Report on Hydro peritonæum Based on an Analysis of Forty-six Cases." The histories of these forty-six cases I had recorded. The results of the analysis seemed to show the utility of tapping early, and as often as the dropsy returned. Since the date of that report, in the cases which have come under my observation in hospital and in private practice, I have pursued this course of treatment, and the results have appeared to confirm its utility.

The objections brought against tapping early, and it may be, repeatedly, in cases of ascites, are—

1st It is liable to be followed by alarming prostration, and it may even prove fatal in subjects greatly enfeebled.

2d It sometimes proves fatal by inducing peritonitis.

3d Relief procured by tapping is usually but temporary, the dropsy, as a rule, speedily returning.

4th With every return of the dropsy a large quantity of albumen is withdrawn from the blood. The vital forces are thereby impaired, and, although temporary relief may be obtained, the duration of life is shortened.

In no instance under my observation has either a fatal result or alarming prostration followed tapping.

On the contrary, relief, immediate and pronounced, has been invariable. I have met with but a single instance in which peritonitis was induced by tapping. In that instance, ascites from cirrhosis was associated with general dropsy from chronic Bright's disease, the latter, as is well known, involving a predisposition to inflammation of serous structures.

All danger in the direction of either exhaustion or peritoneal inflammation is probably avoided if, instead of the ordinary mode of tapping, aspiration be employed. The slowness with which the liquid is withdrawn by aspiration, obviates any risk of exhaustion, and the insignificant puncture with a small trocar can hardly give rise, in any case, to peritonitis.

Two objections may be raised to aspiration. One of these is the length of time required for the operation, and the fatigue on the part of the operator, in removing by this method a large quantity of liquid. It is an answer to this objection that the manual part of aspiration does not call for a skilled hand, and therefore, the assistance of a nurse or an attendant may be made available. The other objection is the inconvenience often of having at hand an aspirator. This objection is met by substituting for the beautiful but cumbersome apparatus of Dieulafoy, or the adaptation of the stomach pump by Braditel, a very simple arrangement which I devised many years ago for thoracentesis. The instrument used is that known in the United States as Davidson's syringe.¹ It consists of an India rubber hollow ball of a size to be readily grasped by the hand, connected with which are two India rubber tubes. By the introduction within the base of moveable valves, one of the tubes is made afferent, and the other efferent. At the end of the afferent tube is an attachment for connecting with it a small counter. The aspiration through this tube is effected by the expansion of the central ball, and the latter by compression with the hand, is emptied through the efferent tube. For thoracentesis and all other applications of aspiration, this homely instrument is all that could be desired, except in an æsthetic point of view. Its advantages are its cheapness, its portability, its durability, and its being always in order for immediate use.

The more important of the objections which have been stated to tapping early and repeatedly in cases of ascites, are that the relief which it may afford is but temporary, and that life is shortened by the impairment of the vital forces consequent on the loss of the nutritive constituents of the blood.

Regarding these objections from a rational stand

¹As an exceptional instance I may mention the Hand Book of Medicine by Dr Frederick T Roberts.

¹My instrument is called in England Higginson's Syringe.

point, the measures of treatment pursued by those who delay as long as possible tapping, are to be contrasted with the advantages of the latter. The measures other than tapping generally have for their object the removal or the diminution of the dropsy. The measures are sudorifics, diuretics, and hydrogogue cathartics. Sudorifics accomplish so little, that nothing is to be said in their favor. Very little can be said in favor of diuretics. The instances are rare in which much is accomplished by this class of remedies. Hydrogogue cathartics are more efficient. Elaterium, the pulvis purgans and the saline cathartics sometimes diminish considerably, and they may even remove the dropsy. Their uncertainty, however, must be admitted, and, when more or less effective, the object is usually accomplished slowly, not a little depression and perturbation being caused by their repetitions. Now, is it not a rational conclusion, inasmuch as by tapping the removal of the dropsy is effected with certainty within a few hours, or even minutes, the operation being harmless and giving very little pain, that this method of treatment is to be preferred? And in view of these advantages of tapping, why waste time in an endeavor to effect the object by drugs?

Here, as in regard to all therapeutical questions, an appeal must be taken from reason to experience. And in deductions from experience, as well as in rational conclusions, the different affections of which ascites is a symptom are to be taken into account. If the ascites be symptomatic of malignant disease, and where it depends on persistent occlusion of the portal vein from thrombosis, embolism, or the pressure of a tumor, tapping, as well as other measures for the removal of the dropsy, cannot be expected to promise often more than temporary relief. But in the cases falling in this category, it has seemed to me evident that life is prolonged by tapping, repeated as often as need be, and, on the other hand, life has seemed to me to have been shortened by the use of depressing and perturbing drugs. In the great majority of cases, as is well known, cirrhosis of the liver is the affection having a causative relation to the dropsy. Now, in a certain proportion of these cases, the dropsy is dependent on auxiliary causes co-operating with the hepatic lesion. Anæmia, anorexia, impaired digestion, etc., the effects of alcoholism or of other agencies, are more or less involved in the causation of ascites. Without these auxiliary causes, dropsy would not have occurred, and the cirrhosis perhaps would have been well tolerated. These cooperating causes are often, to a greater or less extent, removable. The discontinuance of spirit drinking may sometimes suffice for their removal. These statements are based on the study of cases which I have recorded. Let the tapping be resorted to as soon as the dropsy occasions notable inconvenience, let auxiliary causes be removed as far and as soon as practicable, let the patient be placed on a tonic and analeptic treatment, let depressing and perturbing drugs be avoided, let tapping be promptly repeated if the dropsy return, and, notwithstanding the existence of a certain amount of cirrhosis, there may be a restoration to fair general health, and its continuance for an indefinite period.

My collection of recorded cases furnishes illustrations of the correctness of this operation. It may be that the dropsy will not return after a single tapping. More frequently, the tapping has to be repeated. The intervals between the repetitions, in different cases, and at different periods in the same case, differ greatly. Even if tapping be repeated many times and after short intervals, I believe the rule to tap as early and as often as the dropsy occasions inconvenience, to be better than to let the dropsy remain, or to undertake to lessen it by hydrogogue cathartics. In one of my recorded cases, the patient was tapped 30 times within 18 months. He had come to regard this measure as a trivial affair, and on one occasion, medical aid not being at hand, he tapped himself, using the blade of a pair of scissors instead of a trocar, and introducing a common clay pipe stem as a canula. He was accustomed, the day after a tapping, to go about his business as usual. This was a dispensary case, and was lost sight of after the thirtieth tapping. At that time he was anæmic, but able to take pretty active exercise. There are some cases of ascites in which a causative lesion, if one exist, may remain permanently innocuous, at least when not associated with auxiliary causes, as shown by the recovery and the continuance of perfect health. Of my recorded cases, a few are in this category.

In concluding my clinical report on ascites, published twenty years ago, I used the following language: "Unpromising as are the majority of the cases of ascites, I cannot but believe that, as regards prolongation of life and as much improvement as is compatible with existing structural disease, the success of medical practice would be enhanced by employing less than has been the custom of physicians, diuretics, hydrogogue cathartics, and other depressing remedies, by resorting earlier than is usually done to tapping, and by a greater reliance on tonic medication, together with hygienic measures to invigorate and strengthen the system."

In conclusion now, after the added experience of twenty years, I hold to the same belief, with a stronger conviction of its correctness, as based on reason and clinical facts.

SUPPLEMENT TO THE PAPER ON EARLY TAPPING IN CASES OF ASCITES, BY AUSTIN FLINT, M.D.

As a supplement to the paper on Early Tapping in Cases of Ascites, condensed abstracts of the histories of twelve cases are appended. The sole object in submitting these cases is to illustrate the practical points presented in the paper. All details not bearing upon these practical points are omitted. The cases are appended without comments, leaving the reader to take note of the particular bearings of the facts, which are cited from the histories for the object just stated.

Case I—Repeated tapplings after short intervals. The patient, at the time of the first tapping, greatly prostrated. Progressive improvement.

A woman, aged 36, who had been employed in a liquor shop, was admitted into hospital August 13. She was confined to the bed and greatly prostrated. She was jaundiced. The abdomen was very tense.

A pailful of liquid was removed by tapping. Ten days after the tapping her condition was much improved. At that time the following note was written: "When this patient came under observation she was extremely prostrated. I felt sure that active hydrogogues would have been dangerous, and I felt equally sure that she would have succumbed under the disturbance caused by the greatly distended abdomen. I am persuaded that the continuance of life, in this case, was due to the tapping."

September 3 the dropsy had returned, and the patient was again tapped. September 16 she was again tapped, and again on October 30. Shortly after the last tapping she left the hospital. She progressively improved, notwithstanding the repeated tapplings after short intervals. There were no cardiac nor renal complications in this case. The spleen was much enlarged.

Case II—Tapping once, and no return of the dropsy, the patient apparently well two months after the tapping

A woman, aged 35, was admitted into hospital in January. Enlargement of the abdomen had existed for two months. The enlargement, at the time of admission, was very great, and attended with much suffering. The patient was confined to her bed. Tapping at once was resorted to, and a bucketful of liquid removed. Notable immediate relief followed. Improvement was noticed. A month after the tapping, the patient was attacked with cholera morbus. There was no return of the dropsy. After recovery from the cholera, she left the hospital reporting quite well.

Case III—Tapping after ineffectual treatment by hydrogogues. Three months after the tapping the dropsy had not returned

A man aged 50, a spirit drinker, was admitted into hospital in September. Enlargement of the abdomen began three weeks before his admission. Elterium was given repeatedly, causing only a temporary diminution of the dropsy.

He was tapped in December. The abdomen was then much distended, and the lower limbs swelled. There was considerable emaciation. March 30, it was noted that there had been no return of the dropsy, that the patient reported quite well, and that he had a healthy aspect.

Case IV—Ascites followed by phthisis, No return of dropsy after 3 years. Notable enlargement of abdominal veins

A man, aged 46, had had ascites 3 years before his admission into hospital. The dropsy disappeared in 7 weeks. Treatment not noted. He quit spirit drinking in a great measure afterward. There had been no return of the dropsy. He had had good health, and had been able to do full work as a ship carpenter for several months, when the symptoms of pulmonary disease began. On his admission he had pulmonary phthisis and chronic laryngitis. He noticed enlargement of the abdominal veins first at the time of the disappearance of the dropsy. On his admission, the appearance of the abdomen was described as follows: "The abdomen presents a very remark-

able spectacle. The abdominal veins are greatly dilated and varicose. This appearance is most marked on each lateral part of the interior aspect of the abdomen, the veins extending upward nearly to the level of the nipples, without the mammary line. An enlarged vein extends along the median line, and one on each side of this line. The blood flows in all these veins from below upward.

Case V—No return of ascites after a single tapping for a period of two years

A seaman, aged 22, a spirit drinker formerly, was admitted into hospital with typhoid fever, from which he recovered. Two years before his admission he had ascites, and was tapped. He quit the use of spirits, and there had been no return of the dropsy. There was great enlargement of the superficial veins of the abdomen in this case.

Case VI—Cirrhosis of the liver in a notable degree without ascites

A woman, aged 33, when admitted into hospital was feeble and anemic. She had had several attacks of hæmatemesis. She was progressively improving, when 4 months after her admission, she was seized with pneumonia, which proved fatal. There had been no ascites. The autopsy showed in addition to the pneumonia, a hobnail-liver, weighing only two pounds, also disease of kidneys. This case is introduced as illustrative of the tolerance of cirrhosis as regards dropsy.

Case VII—Ascites in a case in which tapping was twice performed, and no return of the dropsy a month after the last tapping

A woman, aged 40, a spirit drinker, was admitted into hospital, with ascites, in October. She was at once tapped with immediate relief. Early in December, she was again tapped. A month afterward there had been no return of the dropsy. The patient was then discharged, reporting and looking well.

Case VIII—Ascites treated ineffectually with elaterium. Tapping twice, and no return of the dropsy two months after the second tapping

A woman, aged 25, applied at a college dispensary, in April, with ascites which had existed for four months. Some diminution of the dropsy was effected by elaterium, but the diminution was temporary. She was then tapped, and, after two months, the tapping was repeated. Two months afterward there had been no return of the dropsy, and she reported quite well.

Case IX—Ascites treated by tapping, and return of the dropsy repeatedly after long intervals

A man, the age not stated, a spirit drinker, was admitted into hospital with ascites, which had existed for two months. It was developed after intermittent fever. He gave the following history: Eight years prior to his admission he had ascites, and after four months was tapped. The tapping was repeated after two weeks. There was no return of the dropsy, and he had good health for six years. The dropsy then returned, and he had also hæmatemesis. Five weeks afterward he was tapped. The dropsy returned but disappeared under the use of medicines, and he remained free from it for about two years. He had

continued to drink spirits more or less freely The subsequent history is not noted

Case X—Ascites referable to thrombosis of portal vein Tapping ten times within three months No return of the dropsy, and the patient in fair health eleven years afterward Diet of milk and gingerbread

This patient, a man 45 years of age, of good habits, came under my observation, in private practice, eleven years ago He had been ill for several weeks, his symptoms having been supposed to denote thrombosis of the portal vein I may mention that the patient's wife, a very intelligent woman, had endeavored to study her husband's case by reading medical books, and the reason of my being called in consultation was the advocacy of tapping in my notes on the Practice of Medicine The abdomen was greatly distended Owing to the feebleness of the patient, it had been deemed hazardous to resort to tapping This measure, however, at my suggestion, was at once employed, and notable, immediate relief followed Within three months the patient was tapped ten times The aggregate amount of liquid removed was about 350 pounds After the last tapping there was only a moderate accumulation of liquid, and this gradually disappeared The patient slowly recovered, and for the past ten years he has had fair health His aspect is healthy, and he is accustomed to walk from four to six miles daily

During the period when the tapplings were repeated, and for more than a year afterward, this patient confined his diet strictly to milk and gingerbread These articles have constituted the greater part of his diet ever since He has taken neither fish nor fowl nor meat of any kind He is accustomed to take, in addition to the milk and gingerbread, rice, oysters, eggs and asparagus On one occasion he was led to indulge for several days in the luxury of eating boiled green Indian corn This was followed by a moderate return of the ascites, which disappeared under the use of diuretics After this experience he resolved to stick to the diet to which he had become habituated

Case XI—Case of supposed portal thrombosis Tapping repeated ten times Complete recovery

This patient, a man aged 47, came under my observation in private practice, in March, 1880 His illness began in December, 1880 He was then in Kansas He was there considered to have malarial fever and inflammation of the liver and spleen Between December 8 and 27 he had three attacks of hæmatemesis and became greatly prostrated Following this, ascites developed, and œdema of the lower limbs On February 3, 1881, he was tapped for the first time, and twenty quarts of liquid removed He was again tapped February 17, and March 2 He was then brought to Hoboken, N J, and was seen by me, in consultation with Dr T R Varick, of Jersey City He was tapped by Dr Varick March 20, April 3, April 14, April 25, May 9, June 6 and July 10 When seen by me before the tapplings by Dr Varick, he was greatly emaciated and prostrated He was, however, able to take food freely, and notwithstanding the tapplings, he pro-

gressively improved A relative informs me by letter, dated May 31, 1883, that he is in better health than for many years before his illness In addition to the tapplings, the treatment by Dr Varick was tonic and analeptic He also took from eight to ten minims of the compound tincture of iodine for several weeks

This patient was and is a total abstainer from all forms of alcohol

Case XII—Ascites from fibrous thickening of peritonæum Eleven tapplings, death and autopsy

A man, aged 50, was admitted into hospital, July 11, 1881 He declared that he was not an habitual drinker of spirit or other alcoholics Enlargement of the abdomen was first noticed in the Spring of 1878 Jaundice existed at that time The treatment and progress of the case were not noted in the history He was in hospital in April, 1879 The abdomen was then considerably enlarged, but the liquid diminished, and he was in a short time discharged In August, 1879, he was readmitted, and he was then tapped for the first time He left the hospital, but was again admitted November 28, and between this date and April 12th, he was tapped six times He then returned to his duty as a watchman, and he did not again enter hospital until July 11th, 1881 The ascites were now great, and he was tapped on July 13th, 1881 The tapping was repeated October 6th, June 2d, 1882, and in October, 1882 Up to this time his general condition had been fair In November, 1882, it was noticed that he had pleurisy with effusion, and that the abdomen was much distended The tapping was repeated November 21st, the liquid withdrawn, being, for the first time, sero-purulent Death, from exhaustion, occurred November 21st, 1882

The autopsy showed thickening, adherence and calcification of the pericardium The heart was somewhat dilated, no valvular lesions The legs were œdematous, and the right pleural cavity contained about two quarts of sero fibrinous liquid The left pleural surfaces were adherent, and the pleura greatly thickened

The capsule of the liver was much thickened, and the organs slightly cirrhotic The gastro-hepatic omentum was about an inch in thickness, and compressed the hepatic artery and the portal vein The hepatic duct was situated above the thickened omentum There was universal fibrous thickening of the peritonæum Recent peritonitis was shown by the presence of exuded fibrin, and the peritoneal cavity contained sero-pus The capsule of the spleen was much thickened This organ was 6 inches in length, 4 inches wide, and 3 inches in thickness The kidneys had undergone some fibrous degeneration

A COMPARISON OF ANTISEPTIC AND NON-ANTISEPTIC METHODS IN SURGERY

BY DR DUDLEY P ALLEN, 177 EUCLID AVE, CLEVELAND, OHIO

[Read to the Section on Surgery and Anatomy, Cleveland June 1883]

On May 20, when the committee were arranging the programme for this meeting, it was found that there was probably no paper that would directly in-

produce a discussion upon the comparative merits of surgical procedures undertaken with antiseptic precautions and those undertaken without them. At the request of the local Secretary, I have therefore attempted, in the shortest time possible, to present a comparison of various antiseptic methods with each other, and with non-antiseptic methods.

I think it beyond doubt that, in this country, so-called antiseptic methods are in less favor now than they were a few years ago. This change has become more apparent since the International Congress in London, and depends, to a certain extent at least, upon the favorable statistics produced by Mr Keith and Mr Tait in ovariectomy, since they have given up the use of antiseptics. The argument runs thus: If in abdominal surgery it is possible to do away with antiseptics, it must certainly be so elsewhere. Does this argument apply to surgery of other parts? If everything is perfectly clean and aseptic before coming in contact with the abdominal cavity, the only remaining source of infection will be the air. As is well known, the least dangerous source of infection to wounds at the time of operation is the air. Vital tissues have a certain power of resisting septic influences, as is eminently shown in operations on the face. If now, the abdominal cavity does not become infected by the atmosphere, or has sufficient power to resist the germs that may reach it from this source, during the operation, it rapidly ceases to need antiseptic precautions, on account of the rapid union of the peritoneal surfaces.

In this respect, the abdominal cavity differs from the cavities of joints, and from other wounds, since in these there is constant danger of infection taking place from the discharge that may be poured out for days, perhaps for weeks. It would therefore seem that abdominal surgery stands in less need of antiseptic methods than surgery of other parts.

I hope it may be pardoned if this paper is presented from the standpoint of observations made in the clinics of the surgeons whose names are mentioned, and previous observations made while resident house surgeon in the Massachusetts General Hospital of Boston. In the first place, then, with regard to Mr Keith. He at one time used the spray. Under its use he had 80 successive recoveries from ovariectomy. Later, he had two deaths, which he ascribed to carbolic acid poisoning. Mr Tait has had 97 successful recoveries out of 100 cases of ovariectomy. Neither operator uses the spray. In October last, however, Mr Keith said to me: "Instead of being opposed to the principles of antiseptics, I believe in them." One day I saw him remove an immense fibroid of the uterus, largely adherent, without the spray, and a few days later open a perinephritic abscess, with the spray, using carbolic acid dressings. He says he does not use the spray now in operating upon the abdomen, because he fears poisoning, and thinks he has lost cases from that cause. If, however, any operator in the world carries out the principles of antiseptics, it is Mr Keith. Everything that comes in contact with wounds is cleansed with the utmost thoroughness, and the sponges which he uses he intrusts after operating to no one, but washes them

himself, and keeps them constantly immersed in some strongly antiseptic fluid. So far, then, as inferences can be drawn from Mr Keith's practice, they would seem to be, that in abdominal surgery he considers the danger of infection from the atmosphere less than the danger of poisoning by the carbolic spray. In wounds like the perinephritic abscess of which I spoke, he uses the antiseptic method.

Antiseptic methods may be grouped under three heads, and may be discussed as they are applied by the three men who have been their leading advocates.

Every one has read and heard so much of the minute care, which Mr Lister takes in the use of antiseptics, that a description of his method would be superfluous. Those who have seen him operate, however, know how rare it is to see an amphitheater in which his precautions are followed with any approach to his perfection.

Let me describe antiseptics as they are applied in a vast number of amphitheaters.

All points of failure may not be present in any one amphitheater, but some defect is very often present. For example, the silk sutures are used dry, or at most, only dipped in carbolic acid. The cat-gut is taken out of its solution and exposed to the air, or, perhaps, hung on the lapel of the assistant's coat. The coats, both of operator and assistant have been worn in hundreds of operations. Coarse sponges are used which, when out of use lie dry in the amphitheater, and are only washed out in an antiseptic solution before they are used in the wound. The part to be operated upon is simply rinsed off with carbolic acid before the operation begins. Though the hands of the operator and assistant may be thoroughly washed, the surgeons who are invited to examine the wound, simply dip their fingers in the antiseptic fluid, and then place them in the wound, and when dressings are applied they are neither adequate in amount nor applied with sufficient care to prevent the easy access of air to the secretions of the wound. With all these sources of infection, the spray may be kept playing upon the wound with the greatest care, but since this is only intended to prevent infection from the atmosphere, it can by no possibility overcome the infection which may be introduced from any one of these numerous sources.

It seems to me, gentlemen, that right here is the point upon which the conclusions that are being drawn by so many upon the uselessness of antiseptics are at fault. The most prominent feature of Mr Lister's system being the spray, this was seized upon as the potential element in the securing of the antiseptic healing of wounds, while the other details of the method, which are based upon the absolute cleanliness of everything that is to come in contact with wounds, have been neglected.

That the spray is not a necessity, and that it is the other details that are important, may be shown by a short description of the methods of Prof Volkmann, of Halle, Saxony, who has been the chief champion of antiseptics in Germany. He secures antiseptics by the flooding of wounds. The floor of his amphitheater is covered with marble, and his in operating

in the center through which water runs away. During operations, the wound is flooded every two or three minutes from a can resembling a watering-pot for flowers, held perhaps two feet above the wound, that the force of the solution of carbolic acid falling upon it may thoroughly wash away any septic matter that may chance to rest upon it. The operator and his assistants wear clean linen coats. No sponges are used that have not soaked at least seven days in 1 to 20 carbolic acid. The ligatures of catgut are only taken from the carbolic oil as they are used. Silk is boiled before use, and kept in an antiseptic solution. The skin covering the part to be operated on is scrubbed thoroughly with soap and water, by use of a nail brush, and ether is often used to dissolve any sebaceous matter that may be collected in the gland openings, and no instrument is used that has not been thoroughly carbolized. When the wound is being stitched together, and can no longer be flooded, a spray is kept playing upon it until the dressings are applied, and also when they are changed. It is but justice to Prof. Volkmann to say that his dressings are applied with a perfection that could scarcely by any possibility be excelled. The excellent results which he reports, and which one can see in his wards, are sufficient guaranty for the efficacy of his method, which succeeds in securing first intention to a remarkable degree, without the spray. The great disadvantage of the method is the fact, that the drenching of the wound with carbolic solution wets both operator and floor, and is extremely disagreeable. Whether Prof. Volkmann may have introduced some new method of operating since I saw him operate in this manner, is impossible for me to say. There remains for consideration the method used by Prof. Billroth, of Vienna.

So far as all precautions in operating are concerned Prof. Billroth's methods correspond almost entirely with Prof. Volkmann's, except that he does not flood wounds so constantly nor abundantly. He does, however, wash them thoroughly. At first he used for washing 1-40 carbolic acid. It is my impression he may now use only water. The essential characteristic of his method is, that in fresh wounds he dusts the wounded surfaces thoroughly with finely-powdered iodoform. In case of sinuses or necroses he places a considerable amount of iodoform in the openings. For dressing wounds gauze is used that is filled with iodoform.

The difference between this method and that of Lester is, that while Lester's might more properly be called aseptic, preventing the entrance of germs into a wound, Billroth's might be called antiseptic, disregarding the entrance of germs into a wound, but destroying them by an antiseptic, which, continuing to act for a long time, constantly prevents any septic process occurring in the secretions.

This method is much less troublesome than either of the others, costing less time and less money, and has the advantage that, should the secretion of the wound leak through the dressings, and become exposed to the air, they are prevented from developing germs by the presence of iodoform, and hence do not demand so careful attention as carbolic acid dressings. The method is of great value where it

is impossible by other methods to secure antiseptic measures. For instance, in removal of the tongue it is only with the greatest care and trouble that the floor of the mouth can be prevented from becoming foul, and the operation has proved commonly a very dangerous one from infection not only of surrounding parts, but also of the lungs. After removal of the tongue Prof. Billroth simply packs the floor of the mouth with strips of gauze covered with a preparation of iodoform. This first packing remains often eight to nine days, the wound in the meantime being untouched, and free from all bad odor, and by this means I have seen many cases make a most comfortable and rapid convalescence. The method is equally applicable to operations upon the rectum and the vagina, where other antiseptic methods are impossible, and though the method may not be desirable in all respects it certainly has an especial adaptability to wounds where there is a large septic discharge, to sinuses where complete disinfection is well-nigh impossible, and to surgery in war, where more frequent, and costly, and elaborate dressings would be impracticable. So far as the latter point is concerned, it would seem to be less trouble some than any other method in vogue, even when no antiseptic is in use.

Though a discussion of the merits of other antiseptics than those mentioned might be of interest it does not come within the scope of this paper, and, from the subjects that have been sent to your local committee, I judge a comparison of various antiseptics will be presented by someone else. For the purposes of this paper all antiseptics may be grouped under one of the three heads mentioned. First. Those methods that prevent the entrance of germs to a wound, as represented by Lister. Second. The method of Volkmann, which washes them from a wound while it is exposed, and then so protects the wound by dressings as to prevent germs reaching it. And third. The method of Billroth, which disregards the entrance of germs to the wound during operation, and to the discharges during the process of healing, but destroys their evil influence by the presence of a powder that renders the wound continuously antiseptic.

Other fluids may offer certain advantages over carbolic acid, as bi-chloride of mercury, naphthalin, chloride of zinc, or alcohol. Other powders may prove desirable, as subnitrate of bismuth, salicylic acid, or the practice of covering wounds, after disinfection, with bags of powdered peat, but the principle involved in all these dressings is the same as those mentioned.

Whatever antiseptic method is used, it has certain disadvantages. Almost all methods demand much time and attention to details, and expensive dressings.

Should sepsis occur, it is perhaps more dangerous than in open wounds, because germs develop more rapidly in a confined atmosphere than in one where the air circulates freely. Drainage tubes also tend to conduct any poisonous influence to the deepest part of the wounds. The whole system of antiseptics seems to interfere with the ideal method by which

one would seek to gain first intention in wounds, viz., to place wounded surfaces in apposition and keep them so, without the interposition of any foreign substance that would seem to oppose this union.

Those elements in antiseptic surgery which when improperly applied are its dangers, are, when properly used, its safeguards. Drainage tubes which may conduct septic influences to a wound, are, if prevented from so doing, efficient in preventing the accumulation of secretions that tend to delay healing and are, if removed at the proper time, untrustful.

The antiseptic dressings that may favor the development of sepsis, if this is allowed to enter, are, if well applied, a means by which a wound may be kept at perfect rest for days, and exercise a pressure which keeps wounded surfaces closely and constantly in apposition, thus favoring their union, and preventing, in connection of drainage tubes, the collection of discharges. By no means does it seem possible to so fully apply the principle of letting wounds alone after operation as by excluding septic influences.

Some French surgeons, notably Verneuil, have advocated the healing of wounds by second intention, except in cases where this involved too great danger, as in drunkards or patients with diabetes, arguing that antiseptics introduced too many dangers for the advantages they offer. That carbolic acid and iodoform do under certain circumstances poison and even kill patients is undoubtedly true. It is claimed that certain antiseptics more recently introduced do not possess this danger. This must needs be proved, however, by long trial, since anything that will destroy germs cannot be wholly without effect on organized tissues. That a perfect method of employing antiseptics has not yet been satisfactorily demonstrated is beyond doubt, but as methods are better understood these dangers are more and more avoided, and when one compares the results of treatment of injuries of joints, and compared fractures now with those formerly secured, it would seem that surgical progress should be sought in the direction of the development of the principle enunciated by Lister, rather than in an opposite direction, and that what is needed is to separate the essentials of the method from those things that are not essential.

The theories concerning germs cannot as yet be regarded as settled, but enough seems to be shown to render it probable that their presence in wounds is deleterious. If the dangers which have been ascribed to them arise from some other cause, this has not yet been demonstrated.

In conclusion then, it would seem: 1. That the fact that operations on the abdominal cavity succeed without the spray, does not influence the employment of antiseptics with regard to other operations where there is a continued opportunity for infection. 2. It would appear that the spray is the least important of all the details in antiseptics, and that if the other details already mentioned are attended to, the proper dressing of wounds, pressure and drainage, may by securing absolute quiet for a wound, turn danger into benefits. 3. That different methods are of different application, and that whereas the spray might be most desirable in opening joints, and in

the atmosphere of hospitals, with bad hygienic surroundings, flooding might be equally efficient in certain other wounds, and that some permanent antiseptic as iodoform would be most servicable, when other antiseptics are inapplicable, as in removal of the tongue, or where there are cavities that can be rendered aseptic only with difficulty, as in sinuses and necroses, and that some such permanent antiseptic would be of incalculable benefit in war where frequent and elaborate dressings either antiseptic or non-antiseptic are impossible. And 4. That although there are certain dangers in the use of antiseptics, these are more than equaled by the dangers attendant upon their omission, especially in large hospitals, and that dangers of poisoning are certainly decreasing as the application of antiseptics is becoming better understood, and further that investigation may develop a method of securing aseptic results less onerous, and devoid of the disadvantages that now surround them.

If it might not be out of place to make a personal observation, I would venture to say, that after a very careful study of the various methods employed in surgery, both antiseptic and non-antiseptic, as applied in the clinics of a large number of the most esteemed of living surgeons, it has seemed to me that the various antiseptic methods secured far better results than other methods.

I hope, gentlemen, you will pardon me for the seemingly dogmatic manner in which the statements in this paper have been advanced. They have been thus presented only that in the shortest space possible this subject might be brought before the convention for discussion, and if the paper should succeed in eliciting from the many men here present, who are so eminently qualified to instruct the profession at large, their opinions upon a subject which is fundamental in all surgical procedures, it will accomplish the sole purpose for which it was written.

NASAL DISEASE A FREQUENT CAUSE OF ASTHMA

By JOHN O. ROE, M. D. ROCHESTER, N. Y.

[Read in Section on Ophthalmology, Otology and Laryngology, June 1883.]

It has become a well-known fact, since it was first pointed out by Valtolini, that polypoid and other growths in the nasal passages are the frequent cause of asthmatic attacks, but it is only since Weber called attention to the relation between chronic nasal catarrh and asthma that it has been recognized, that other diseases of the nasal passages, independent of neoplastic growths, are also capable of exciting asthmatic attacks in a similar manner.

Asthma is proverbially considered to be the most intractable of all diseases. Indeed, so uncertain is the effect of any remedy in its treatment, in different individuals, that physicians not unfrequently depend more on the experience of the patient respecting any particular remedy than upon the logical administration of remedies to meet the symptomatic indications.

This capriciousness of asthma has led to the most diversified therapeutics. In otology, in laryngology,

which to the present time has been the most imperfectly understood of any disease with which we are so familiar. Since the time of Laennec, numerous theories have been proposed to explain the cause and phenomena of the disease, but none have met with more general acceptance than the one proposed by Laennec himself, that asthma is a neurosis, and depends on either a functional or an organic change in the nerve centers, producing a spasm of the bronchial muscles, and consequent narrowing of the tubes during the attack. This theory of the nervous origin of asthma is founded mainly on the assumption that diseases which cannot be traced to organic lesion, are manifested in symptoms of derangement of the nervous system.

This view of the cause of asthma, supported by Andral, met with general acceptance, but the negative evidence on post mortem inspection, led to seeking another cause.

Louis observed the exudate which followed the attack, and its frequent association with emphysema and bronchitis. He therefore considered asthma to be a consequent symptom of these affections.

Dr C. J. B. Williams, supported by Longet, proposed that the disease be divided into two forms—the spasmodic and the paralytic, the former accompanied emphysema, while the latter appeared in connection with chronic pituitous catarrh.

Traube and Villemain, not satisfied with these theories, attributed the dyspnoeal attacks to fluxionary hyperæmia of the bronchial mucous membrane.

Tetanus of the diaphragm and other muscles of respiration, accompanied, perhaps, by a spasm of the glottis, was then proposed by Wintrich, and supported by Budd and Duchenne, while See insisted that asthma is a neurosis of the vagus and its branches, and manifested itself by a tetanus of all the respiratory muscles and by a bronchial expectoration.

Dr Burdon-Sanderson proposed that relaxation of the vocal cords and narrowing of the chink of the glottis during profound sleep, accounted for the asthmatic attacks at night.

Leyden considers asthma a form or symptom of croupous bronchitis.

And lastly, we have proposed by Weber, and supported by Hering, that the disease is a vaso motor neurosis. The fluxionary hyperæmia proposed by Traube is thus produced by the vessel dilatation caused by irritation of the vaso motor nerves. The fact that hyperæmia and swelling of the bronchial mucous membrane take place, was confirmed by Stork, who demonstrated by laryngoscopic examination the congestion of the trachea during the attack.

In reviewing, even thus briefly, the different theories regarding the pathology of this affection, which have from time to time been proposed, we cannot fail to observe that the influence exerted by the sympathetic system of nerves had been entirely overlooked, until pointed out by Prof. Weber.

This is still more singular, since it was so well known that derangement of various organs and disease of various parts of the body would provoke attacks of asthma, and it was also known that disease in one part or organ will cause, through the agency

of the sympathetic nervous system, derangement in another organ, even in remote portions of the body.

Before discussing the special affection forming the subject of this paper, I will enumerate, in passing, some of the varied reflected phenomena, observed to result from disease in the nose, and manifested in nervous disorders—as chorea, reflex epilepsy, neuralgia (especially of the supra-orbital nerve), melancholia, loss of memory, and mental depression. This relationship which exists between the nasal mucous membrane and the nervous system, has been very clearly formulated by Dr. Jacobi, in a recent communication to the New York Obstetrical Society, on some of the effects of nasal polypi in children, as follows:

First. The trigeminus, with all its branches, is subjected to direct or reflex irritation arising from the inflamed condition of the nasal mucous membrane.

Second. The thickening of the mucous membrane in the narrow passages of the child, and especially the presence of a polypus, seriously interferes with respiration, and the result is the accumulation of carbonic acid gas in the brain, particularly about the respiratory center at the medulla oblongata.

Third. The lymphatic system of the nasal mucous membrane and that of the dura-mater and the arachnoid membranes are in intimate relation with each other, which is so close that they can be injected from either side.

Disturbances are also seen to take place in other organs, and will only disappear on the removal of the cause in the nose. Among these may be mentioned diseased conditions of the upper part of the digestive tract and gastric disturbances, uterine disorders, affections of the genito-urinary organs, disorders of sight, smell, taste and hearing, affections of the larynx, laryngeal cough, and alterations in the speaking and singing voice.

With this array of affections, unquestionably and not infrequently induced by nasal disease, it is not surprising that organs so sensitive as are the lungs to external impressions, should readily be irritated by similar causes.

There are two modes in which nasal disease provokes attacks of asthma.

1st. The most frequent form results from narrowing or occlusion of the nasal passages by hypertrophied tissue or nasal polypi.

2nd. That induced by disease of the pituitary mucous membrane unassociated with hypertrophy or polypi.

The first is both mechanical and nerve-reflex in its character, while the second is purely reflex.

It is a noticeable fact, that nasal polypi and hypertrophied tissue, when inducing asthma, are almost invariably located on the posterior end of the turbinated bone.

This sensitive area of the turbinated tissue at the posterior end of the turbinated bone, Dr. J. N. Mackenzie, of Baltimore, likened to the sensitive cough centers found in the pharynx and larynx.

The more frequent occurrence of asthmatic attacks at night, especially in those persons having hypertrophic catarrh, is by this fact very clearly explained.

At the posterior end of the turbinated bone, the cavernous erectile tissue is much thicker and more dilatable than at the anterior, consequently, when in the recumbent position, the gravitation of the fluids distends this portion of the tissue, which, together with the accumulation of the secretions, occlude the passage, produce pressure at this sensitive point, and reflex irritation in the lungs results. This irritation is reflected to the lungs through the cervical sympathetic, connecting the pneumogastric nerves with the trigeminus, which has extensive distributions in the nose.

The mechanical effect of occlusion of the nares cannot be better illustrated than by the marked dyspnoea, which is occasioned in young children if by any cause the nostrils become obstructed.

From a number of well-marked instances of asthma, caused by nasal disease, independent of polypi, which have come under my observation, I will cite the following, by way of illustration. A lady, age 40, consulted me in regard to attacks of asthma, which were increasing both in frequency and severity. She had had asthma more or less for several years but more since the birth of her last child, three years before. She was subject to frequent colds in the head, which almost invariably induced an attack of asthma. On examination, I found an irritable chronic rhinitis with some pharyngo-laryngeal and bronchial catarrh.

There was some thickening of the nasal mucous membrane, which was very sensitive, but there was little or no turbinated hypertrophy, nor were her attacks to any extent aggravated at night.

Local applications to the nasal cavity, and sedative and mildly astringent inhalations, soon relieved and lessened in frequency her asthmatic attacks. These, soon after, ceased altogether, and she has had none during the three years since, even on taking cold.

A girl, æt 18, was referred to me suffering intensely from dyspnoea of an asthmatic character. From the character of her respiration, I suspected some laryngeal obstruction. On laryngoscopic examination, the larynx was found clear, so were also the lungs, except some narrowing of the smaller tubes. There was no mucus in the tubes or expectoration. The nostrils were both found occluded—the right by hypertrophied turbinated tissue, the left by bony obstruction.

The hypertrophied tissue in the right was removed by Jarvis snare, and the bony obstruction of the left by nasal bone scissors. The passages were freed from obstruction and her asthma disappeared.

In about three months she returned with her asthma as severe as before. On examination, I found in the left nostril that granulations from the site where the bone was removed had formed a band across the back end of the passage, but it did not obstruct nasal respiration. On the removal of this band the asthma disappeared.

Several other equally well marked cases have come under my observation. I will not detain you with a recital of them here, but will add them to this article should it be published.

In the *Edinburgh Medical Journal* for February,

1881, Dr S Hunter Mackenzie reports a case in which asthmatic attacks were caused by atrophic catarrh of the nasal passages. He also says the attacks were worse during August and September, and were entirely relieved by treatment to the nose.

The fact that they were worse during August and September would indicate the cause to be a local irritant, as is the case with hay asthma sufferers.

In hay asthma sufferers the cause for the acute attacks lie in a hyperæsthesia of the turbinated tissue, which hyperæsthesia is caused by a chronic rhinitis (usually hypertrophic) that renders the tissues extremely sensitive to pollen and other irritating substances floating in the air, as the writer of this paper has recently pointed out in an article on hay fever in the *New York Medical Journal*.

This relationship between chronic rhinitis and asthma has also attracted the attention of several recent writers on nasal diseases.

B Fraenkel considers the treatment of the nose of the utmost importance for the relief of asthma associated with nasal catarrh.

Schaeffer believes that all asthma patients suffer more or less from chronic catarrh of the upper air passages, particularly the nose.

Bierner and Riegel consider the nasal fossæ a very frequent center of irritation in the production of reflex asthma.

Dr Elsberg, of New York, has very clearly called attention to the same fact in a recent article before the American Laryngoscopic Association.

Brigen, in a very excellent article in the *Klinischen Vorträge* for May, 1882, points out in a forcible manner the important relations which disease of the nose sustains to spasmodic asthma.

He also calls attention to the importance of free nasal passages and of free nasal respiration, of the baneful habit of mouth breathing, and of the universal attention which should be given to the treatment of nasal disease and to the Englishman's proverb, "Shut your mouth and save your life."

DISCUSSION

Dr Seiler in the discussion said that he fully agreed with the author and that in one case an attack of asthma has been produced by touching a tender part on the nose with the end of a probe, and all asthmatic symptoms disappeared after the spot had been cauterized. He also, was of the opinion that hay fever was due to chronic nasal catarrh of the hypertrophic variety and that the mucous membrane becoming irritated by the pollen grains, gave rise to the well-known symptoms. He had cured cases of hay fever by removing the hypertrophic catarrh.

Dr Frothingham said that he could not see how an inflammation of the nasal cavity could exist for any length of time without a tendency to extend into the mucous membrane of the bronchial tubes and that then these cases were not different from ordinary cases of the disease.

Dr Roe in closing the discussion said he was very glad that Dr Seiler had mentioned in his union. He also said it have

bronchitis in all cases of asthma, but that the congestion of the mucous membrane of the bronchial tubes might readily be produced by the same causes which in the beginning produced asthma

IS ABSCISSION A PROPER OPERATION?

BY JULIAN J. CHISOLM, M.D., OF BALTIMORE, MD

[Read in Section on Ophthalmology, Otology and Laryngology.]

A question which often intruded itself upon me when carrying out the suggestions of Mr. Critebek, was as to the propriety of removing the staphylomatous tumor and leave the bulk of the eyeball behind. This operation I have for many years abandoned, for the reason that I questioned the advantages supposed to attend the leaving of a part of the eyeball to facilitate the movement of the artificial eye shell. It is difficult to divest one's self of the idea, that a round, plump, symmetrical stump, is not essentially adapted for the application of an artificial eye, itself the section of a hollow sphere, which seems to invite into its open concavity a corresponding spherical surface. It seems to be a natural inference that when two surfaces are nicely adjusted they should work well together. However true this may be in joint movement, it must not be forgotten that such sliding movements are not wanted in the application of an artificial eye upon an eye stump. In this case there should be no motion between the opposing surfaces and yet a nice adjustment is always aimed at.

It is no easy matter to remove a general staphyloma and leave a symmetrical globe behind. The elliptical incisions necessary for amputating the corneal prominence wholly, leave sharp points or puckered ends to the cicatricial line, and these form ugly prominences against which the artificial eye presses injuriously. With a certain amount of friction which seems unavoidable, the movements of the eye shell against the irregular surface of the stump induce irritation, and these stumps are kept in a constant state of injection. When the irritation is daily re-excited by the presence of the artificial eye it leads to excessive mucous secretions and a thickened condition of the conjunctival surface, accompanied by an irritability of the socket, which often is so excessive as to exclude the possibility of wearing the artificial eye with any comfort. I find as the result of my observation that this train of symptoms are much more common when an artificial eye is worn over a stump than when carried in an eyeless socket. An explanation for this seems to reside in the much more limited contact of the shell when the eyeball has been entirely removed.

Should two sockets be compared, one holding an eye stump after a successful abscission, the other from which the eyeball has been properly removed, it will be noticed that the motions imparted to the socket tissues by the muscles caught in the cicatrix will be co-extensive with those moving the eye stump, but dissimilar in this regard, that while the eyeball rotates in the orbit with but little movement of the socket tissues, the muscular action upon the eyeless socket makes an irregular form of curvature as each muscle in turn pulls the socket tissue backwards, this

depression being accompanied by a corresponding elevation of the surface over the location of the antagonistic muscle. When an artificial eye is adjusted to an abscised globe nearly the entire opposing surfaces are in juxtaposition, the edges of the artificial eye overreaching the ocular boundaries and lodging against the socket conjunctiva, so that when motions are made by the muscles upon the eye stump and are transmitted by juxtaposition of surfaces to the shell, there must necessarily be some sliding or friction on account of the overlapping of the eye shell, the periphery of which rests upon resisting tissues to which but little movement is imparted. When an eye shell is adjusted to an eyeless socket, which exhibits a slight concavity instead of the eyeball convexity, only the very edges of the artificial eye touch the socket tissues so that friction of opposing surfaces is reduced to a minimum. The edge of the artificial eye rests on the lower conjunctival sulcus, and if of proper size should not press the upper conjunctival cul-de-sac. The variation of position in the plane of the socket as the cicatrix is acted upon by the recti muscles tilts the artificial eye in such a way as to establish movements which will be symmetrical although not co-extensive with those of the good eye. If the movements imparted to an artificial eye by the socket tissues be coequal with those distributed by an abscised eyeball while the effects of injurious friction are materially reduced, the immediate and ultimate dangers of preserving a part of the eyeball, as a cushion, under the belief that it offers advantages for the adaptation of an artificial eye, are too great to justify the operation of abscission. Enucleation may be considered one of the easiest and safest operations in eye surgery. The after-healing is prompt and the operation is final. Abscission, on the contrary, necessitates much experience and skill in the use of instruments to meet all of its requirements for obtaining a symmetrical stump. Destructive inflammation may be the immediate sequela of a most perfect operation. Should the patient escape this peril and the wound heal kindly the eyeball may at any future time become the seat of degenerative changes necessitating enucleation to avoid sympathetic irritation, and these may occur whether the ciliary region be injured or not, during the operation. When we weigh the difficulties and dangers immediate and remote of abscission, with the simplicity and safety of enucleation, with the belief that one has no advantages in moving the artificial eye over the other, then may abscission be rejected as an eye operation.

DISCUSSION

Dr. Culbertson said that in an experience of over thirty years, and embracing by no means a limited number of cases, he had not observed a single unfortunate result from abscission of the eyeball. This favorable showing was probably due to several causes, as follows. The abscission of the cornea and sclerotic one-sixteenth of an inch posterior to the sclero-corneal junction, thus removing the sentient extremities of the ciliary nerves and sensitive cornea, and permitting the escape of the crystalline lens (in one case

he had removed the detached and shrunken choroid, retina and vitreous, with favorable result), the removal of the iris, the rejection of sutures in the sclerotic to act as irritants, and which, closing the eyeball, aid in increasing the tension and the pain, thus leaving an open wound, that drainage from the eyeball may follow, as well as suppuration of its contents (Von Graefe having shown that when this follows sympathetic inflammation of the fellow eye does not obtain), and permitting these to return to the embryonal state mentioned by Stricker as the result of inflammation, and the whole process ending in the formation of a firm and non-sensitive cicatrix in the anterior region of the shrunken eyeball, on which rests the artificial eye in the future, and the use of disinfectants in the conjunctival sac, conjoined with cleanliness after the operation

His patients were, as a rule, sitting up in three or four days, and convalescence has been uninterrupted. He had not observed flattening of the side of the face in children, or so much as a sulcus above the eyeball, following this, as after the operation of enucleation. He believed, too, that abscission permitted greater movements of the artificial eye. He cited also the fact that artificial eyes are worn often with impunity without the removal of the cornea or any preparation of the eyeball.

He would not abscise when sympathetic inflammation was present in the fellow eye, or when there was a foreign body in the affected eye.

Dr Frothingham said that the operation of abscission should be abandoned and that the uninjured eye should be the objective point in a case of injury to it by sympathetic inflammation no risk should be incurred for the sake of æsthetic considerations. Further, that the operations prove more difficult to perform than enucleation and therefore the risk is greater. The stump is always a source of danger even after the lapse of years.

Dr Lundy, of Detroit, had seen cases of total blindness from sympathetic ophthalmia after abscission. Thinks the wearing of an artificial eye over these stumps often produces great irritation. Had seen a case of ossification of the ciliary body and choroid as a result of irritation from the wearing of an artificial eye over such a stump.

Dr Thompson, of Indianapolis, coincided most fully with the views expressed by Dr Chisolm, and mentioned several cases of panophthalmus following abscission and two cases occurred under his observation where two formerly healthy eyes were sacrificed and vision totally lost after the operation of abscission.

Dr Conner said he had seen disastrous results following the operation of abscission.

Dr Noyes said he had formerly performed the operation, but had never seen bad results to follow, in all these cases he had however advised enucleation of the eye. He thought that suppuration prevented sympathetic inflammation in the other eye. In cases of foreign body he should always advise enucleation and thought that the safety of the uninjured eye was the main point.

Dr Corwell, of Columbus, described an operation

for enucleation devised by himself which had proved very successful.

Dr Chisolm, in closing the discussion, said that formerly he had been in favor of abscission, but that now he considered an injured eyeball, whether from operation or from accident, a source of great danger.

EARLY TREPHINING IN DISEASES OF BONES

BY JOSEPH RANSOHOFF, M D, F R C S, ENG PROFESSOR OF DESCRIPTIVE ANATOMY AND CLINICAL SURGERY, MEDICAL COLLEGE OF OHIO

[Read to the Section on Surgery and Anatomy June 1883.]

A careful study of the vascular relations of a bone to its periosteum and medulla, leads to the conviction that there can be no serious deviation from the normal in either without implication of the remaining parts. Of the three component parts of a bone, the osseous tissue proper, owing to its comparatively passive nutritive state, is naturally least liable to inflammatory changes. As a rule, its morbid conditions are therefore secondary in character, and follow upon disturbances of the periosteum or medulla. From the superficial position of the former, its lesions, whether primary or secondary, are always easily recognized. Those of the medulla, on the other hand, are as usually ignored until the periosteum and the bone itself have become involved in a manner to attract attention by irregularities of outline, swelling of the soft parts, abscesses and fistulæ. It is for this reason, that periostitis is supposed to be the most common affection of bone, although there are most excellent grounds for the belief that, in the great majority of cases, the marrow must be looked to as the seat of the first pathological process. Concerning the destructive lesions of the articular ends of the long and of the cancellous tissue of the flat bones, this is universally conceded. What anatomical or physiological factor can be adduced to explain the difference which is supposed to exist in the course of inflammatory changes as manifested in the epiphyses and diaphyses of long bone? For my part, I fail to recognize one. Indeed, there are many persons for holding that most cases of periostitis, whether consequent upon trauma or arising without discoverable cause, are secondary to endosteal lesions. In the first place, it is a well-established fact in pathology, that the tissues which possess the greatest vascularity, and therefore also display the greatest nutritive activity, most readily yield to inflammation. This is likewise true of those tissues in which the greatest number of changeable connective tissue cells are found, for these most readily assume their embryonal form and activity, whence they are only one step removed from pus globules. In regard to both of these factors, the marrow, particularly of growing bone, and especially in the vicinity of the epiphyseal cartilages, must be considered as more prone to inflammation than the periosteum.

Again, it is within the experience of every observer, that intense pains in a limb, with uselessness of the member, will often precede by weeks and even months the development of perceptible changes in

the contour of the bone. Furthermore, under such circumstances, the mere incision of the periosteum, however freely made, will very often fail to relieve the pain effectually, even if pus be evacuated by the operation. Again, this pus, as was shown by Chassaignac and by Rose¹, frequently contains a notable amount of oil globules which could only have come from the medullary cavity. The periosteum itself is free from fat, and the oily appearance of the surface of a bone after it has undergone post-mortem changes must not be mistaken for its appearance *intra vitam*. If subcutaneous bones like the tibia and clavicle are altered by inflammatory processes, it can easily be demonstrated that generally the entire circumference of the bone is involved simultaneously, so that if only a section is invaded by disease, the part will assume a spindle shape. The peculiar osseous changes that follow in the wake of constitutional vices like the tubercular and hectic, are of course not here included. Of greater importance than either of these, is the fact that whatever the bone affected, extensive sequestra are central in character and position, and can only be removed by mechanically destroying in part the laminae that are of periosteal development.

Of inestimable value in the appreciation of the events that lead to the destruction of bone is the fact, that depriving it of its external covering is not productive of exfoliation. This does not require experimental proofs. While an interne of the Cincinnati Hospital I saw the frontal bone denuded over an area larger than the palm of the hand by an attempt at suicide, the periosteum with the soft parts sloughed away. On the fourth day we could observe with a lens the minute capillary loops springing from the depths of the bone and spreading until they touched and the entire wound was filled with granulations. Even if in analogous cases necrosis does ensue, the process is limited in extent and only the superficial lamellae are thrown off.

The unyielding bony case that everywhere surrounds the medulla is an *a priori* evidence of the great gravity of the pathological changes here situate. When an inflammatory exudate rapidly fills the endosteal space its organization is almost impossible. The increased intra-osseous pressure forces serum and corpuscles through the Haversian canals, the periosteum is raised and thus deprived of its internal and external sources of its blood supply, the death of the bone necessarily ensues. The greater importance which I would attribute to the pathological conditions of bone marrow has been recognized by a small minority of observers, especially by Rosen, in Germany, and Lannelongue, in France. Nevertheless, the view is still entertained by the profession at large that except in the acutest cases of osteomyelitis, as first clearly described by Chassaignac, the periosteum plays the more important role. The study of pathological specimens derived from human subjects can give strength to neither of these views, since death does not ensue until the lesions have long passed from their primary form and parts originally not at all involved have suffered death from interrupted nutrition.

Fortunately experimental pathology aids us in

filling up the gap in our knowledge of bone lesions. I need not consume your valuable time in recalling the experiments which have been made relative to this subject, chiefly by Flourens, Ollivier, Busch, Mass and Kocher. It has been generally proven that the opening of the medullary cavity, even with extensive destruction of the marrow is not necessarily followed by general disturbances nor even by increase in the thickness of the bone. Kocher lays considerable stress upon the antiseptic precautions which should be observed to prevent septic changes. In my own experiments I have not been enabled, as a rule to carry them out, since the animals would remove the bandages acting on the belief that their own saliva was a better application to the wound than either iodoform or boric acid. Dogs, from which I removed large portions of the humerus without interrupting the continuity of the shaft in its entire thickness, would run about on the second day after the operation without more than a just perceptible lameness. Of course these wounds suppurred, in one case for six weeks and in another two months, but without leading to the exfoliation of bone. Whoever will experiment upon this theme will readily convince himself that even an extensive purulent exudate in the central canal does not, of necessity, entail the death of bone, unless the inter-medullary pressure is sufficiently increased to cause regurgitation of the blood in the vascular channels and of the exuded material itself back towards the periosteum. The deleterious effects of any great increase of intra-osseous pressure on the circulation of the bone can be most easily demonstrated on the long bone of any young animal in which the marrow has not yet undergone post-mortem changes. If through the small aperture made by a drill in the diaphysis of a calf's tibia, only one ounce of fluid be injected the blood will at once be observed to regurgitate from the interior of the bone through the Haversian canals towards the periosteum and particularly through that of the principal nutritive artery. While I have never been able by this process to elevate the periosteum from its attachments, it explains to me satisfactorily how, in all cases, this membrane becomes secondarily involved, how in the acutest the excess of blood to it, deeper and most cellular layers will lead to suppurative action and how in milder cases by hypertrophy of the bone will follow this interruption in the harmony of the osseous nutrition. In no way has the relation between medulla and even the general circulation been displayed better than by the experiments of Busch and Riedel on the subject of fat embolism, who have been able to induce capillary embolism of the pulmonary vessels by injections into the medullary space.

The question might now be properly raised, whether all the detrimental changes, both local and general, encountered in cases of osteomyelitis are the result of the increased medullary pressure. In subacute and chronic inflammations of bone, where the intra-medullary pressure has been gradually elevated, the osteoporotic condition of the bone in the vicinity of the inflammatory nidus is of itself sufficient evidence of the effect of said pressure. As has al-

ready been seen, the destruction of the medulla, whether produced by hot wire or chemical agents, will not as a rule lead to necrosis, or even to marked thickening of bone and secondary changes in distant parts, I have never seen produced, provided an efficient means of escape be given to the inflammatory exudates, provided, in other words, the possibility of exaggerated tension in the canal be removed. Prevent the escape of the excessive outpouring of blood, and serum and leucocytes from the inflamed nidus, and disastrous local and general phenomena supervene at once. I did not find it necessary in order to obtain these to resort to such violent, and, I might be permitted to say, unnatural methods as the introduction of laminaria tents, chemical irritants plugs of charpie (Busch, Troja) or of septic virus. The extensive breaking down of the marrow through drill-holes, and the subsequent stoppage of these with wooden pegs in two experiment animals resulted in the one case in profuse purulent infiltrations of the soft parts with death of the entire thickness of the bone, and in the other case in the death of the animal on the seventh day from embolic processes in both lungs. The specimen derived from this animal was of particular interest, in that the post mortem investigation displayed at least twenty hæmorrhagic infarcts in the lung at a time when even the medullary cavity as yet was free from pus, although it contained shreds of medullary tissue. In a third animal the medulla of the humerus was likewise destroyed through two drill-holes, only one of which was subsequently occluded. While in this case profuse suppuration ensued, there was no evidence whatever of general infection, or even of necrosis up to the end of the fourth week, when the animal made good its escape.

To the practitioner who sees many cases of compound fracture, experiments such as these will probably only serve to explain the fact that purulent infiltration of the soft parts, septic complications and extensive necrosis is less liable to follow in cases where the injury itself has provided means of drainage than in those in which a small cutaneous wound is attended by extensive comminution of the bone.

The facts which I have attempted thus briefly to elucidate indicate, as has already been remarked, to the minority of pathologists the secondary role of the periosteum and the great importance of the medulla not only in the acutest forms of spontaneous and traumatic osteo-myelitis that lead to speedy death by purulent infection, but also in those milder types of bone disease in which the end results are necrosis, often, of an entire diaphysis, breaking down of the epithelial disk, articular complications, and eventually death from amyloid degeneration of the viscera.

If the two propositions (1 That the exposure of the medullary cavity *per se* is unattended by deleterious consequences, and 2 That the continuance of increased intra-osseous pressure is the main source of secondary changes) are correct, the natural deduction follows that in the very earliest possible use of the trephine we possess an inestimable means of saving life in the acutest forms of bone disease, of curtailing by months and even by years the course of otitis and of preventing the deformities and oper-

mutations that so often follow in the wake of even mild cases.

As was already recognized by Chassagnac, the only relief from local, and often from general death, in the severest types of medullitis, is in the spontaneous formation of an aperture for the vent of the purulent accumulation. Nevertheless, he and his followers obtained from operative interference, although the ancient operation for trephining in bone disease so long abandoned, had been reintroduced by Petit, Hunter, and our own countrymen, Drs N and T Marven Smith. While in the most violent osteomyelitides, the typhus des membres, trephining the bones involved is particularly essential to the preservation of life and limb, it is not here that the operation must find its widest range of application and usefulness, for idiopathic cases that run so rapidly fatal a course, are among the clinical varieties. It is in the sub-acute and chronic inflammations of bone that are of daily occurrence, and that lead secondarily to necrosis or osteo-psoriasis and sclerosis, from long-continued vascular disturbance of the medulla of the bone proper, and of its external envelope that the operation of early trephining is attended with its most signal benefits.

While most modern systematic writers speak with praise of the use of the trephine in the treatment of bone affections, such phrases as if the presence of pus be suspected, or "if the pain is not relieved by an incision" are probably too often encountered in our classical treatises on surgery, for they necessarily deter the timid from timely interference. The latter, is even counselled by Dr Lidell, than whom there is no greater authority living, on the subject under consideration. Among German writers, Deume, Volkmann, Lücke and Roser, discuss the propriety of early interference with the trephine, but none of them had given the operation a trial. It remained for the valuable contribution of Ollier, with its report of nineteen cases, to give that impetus to the procedure to which its merits justly entitles it. Within the last five years Mr Bryant has recorded twelve cases. M Lannelongue three, Mr Downes 5, Dr Bauer 1, in which the early opening of the medullary cavity for diverse affections was practiced with good results, and without causing untoward symptoms referable to the operation. In my own experience, I have within two years felt impelled to resort to the use of the trephine in three cases of inflammation of the shaft of a long bone, and in all of them the relief afforded was as prompt as it was radical.

Case I. Michael J. et 8 years, had received a kick on the shin in July, 1881. The pains of which he complained were unheeded for several days, when the inability of the patient to walk, aroused the anxiety of the parents. The physician who first saw the case, ordered applications of iodine and rest. When the patient was presented at the dispensary of the Medical College, of Ohio, two weeks after the accident, he could bear no weight on the affected member, and complained of course,

were partly relieved by the operation of course, on the affected member.

applications. The part was so sensitive to the touch that its satisfactory examination could only be effected under anæsthesia. Through the swelling of the soft parts, the outlines of the tibia could be distinctly felt. The middle third of the bone was thickened in its entire circumference so far as this could be palpated, and presented a long spindle, the ends of which gradually merged into the normal outline. After demonstration of the case to the class, a free incision was made down to the bone, and the periosteum divided for about an inch. Not a vestige of pus appeared, and while the bone membrane in the wound appeared thickened, it was firmly adherent to the subjacent structure. The relief from pain which followed this treatment was most marked for nearly one week, when, although the wound suppurated freely, and the infiltration of the soft parts had to a large extent subsided, the acute symptoms returned. For this reason I concluded to open the medullary cavity, and on about the twenty third day after the inception of the difficulty I trephined. When the button of bone was removed, several of the by-standing students believed to have recognized several drops of pus exude with the blood from the medullary space. I did not see them, and their presence or absence could have had no effect on the justifiability of the second operation. In six weeks the granulations which filled the osseous aperture were on a level with the skin, and in three months the patient resumed his desk at school.

CASE II — Fred S., æt 7. The child of healthy parents. Referred to me by Dr Little, of Cincinnati. Two months prior to my first examination of the patient, a severe pain developed in the left tibia, without any other appreciable cause than a severe drenching. Notwithstanding the nocturnal exacerbations of suffering, the disease was supposed to be of rheumatic character, and the exhibition of iodide of potassium and the use of the rubber bandage, appeared to be of marked benefit. In August, 1882, three months after the inception of the difficulty, the entire leg presented a glistening, rosy-red appearance. Pressure over the tibia was particularly painful over the points of junction of the middle with the upper and lower thirds of the shaft. The entire tibia was considerably thickened, when compared with the sound one. Recognizing the extensive nature of the affection, and believing it to be central in its origin, I concluded, after consultation with Dr Little, to trephine the bone at two points, and for this purpose selected those of greatest tenderness. At the points indicated, the periosteum was normal in appearance, although at the upper part the surface of the bone was roughened over an area not exceeding the fourth of an inch. It was not necessary to resort to the trephine, for I was enabled, with a sharp spoon, to cut a way into the medulla without the least difficulty, so vascular was the compact tissue of this bone. Where this instrument can be used, I think it should be preferred to the trephine, since the aperture made by it can be changed in form at the will of the operator, and no irritating bone dust is forced into the medulla. In this case, a small quantity of pus escaped only from

the upper aperture. On the fifth day after the operation an erysipelas developed, which involved the entire extremity, and required the opening of several abscesses. This complication did not materially interfere with the cure of the boy, for three months after the operation, he again attended school. Although a just appreciable enlargement of the tibia still remains (nine months after the operation) the boy complains of no pain, is not easily fatigued, and in every way enjoys perfect health.

CASE III — Miss P., æt 16. Suffered from severe pains in the left clavicle, for which medical aid was summoned. The history of the case is not very clear. When I saw the patient in October, of last year, she was pale and unhealthy in appearance, and had ceased to menstruate. The left clavicle was very much thickened, but not very painful to examination. About its center there was a small periosteal abscess, which, when opened, discharged a small quantity of pus. I was not enabled to find a sinus leading to dead bone at this examination. The continuance of the discharge, led me to expose the diseased bone. With the assistance of Dr L J Crouse, of Cincinnati, I found a very small sinus leading into the medulla cavity. With the chisel, I removed a portion of the anterior clavicular wall, and succeeded in extracting a sequestrum, three inches in length, and of perfect form. About its central origin there could be no reasonable doubt. Unfortunately, the welfare of the patient, demanded that the specimen should be ruined, before it was brought to light. While there was no delay in the permanent closure of the wound, the deformity, consequent upon the periosteal growth of bone around the necrotic mass, has not been in the least modified.

In neither of the cases reported did I seek or obtain union by first intention. Had this been accomplished, the operations might justly be called but an exaggerated "*saigner des os*, bleeding of the bone," suggested by Langier before many of us were born. The object of early trephining is to afford a means of exit to the inflammatory exudate as fast and as long as it is found, and hence the circular aperture will always be followed with better results and attended with less risks than the linear osteotomy so highly lauded by Mr Erichsen. Where the entire diaphysis of a bone is involved, I believe it is always best to trephine in at least two places, with the view of equalizing pressure and for readier drainage. In 1839, Marcus Smith already reported a case in which the symptoms were not relieved by two apertures. Finally, the removal of a third button of bone from the head of the tibia was followed by permanent alleviation.¹

I have intentionally refrained from mentioning the osteo myelitis that results from septic infection in cases of compound fracture, gunshot and amputation wounds, as a subject beyond the scope of this paper, and entirely irrelevant to the material embodied therein.

¹ The after treatment in my cases consisted of the filling up of the wounds with Mason's boracic acid, and the application over this of absorbent cotton and the ordinary roller bandage.

PLACENTA PRÆVIA, OR TWO CASES OF CENTRALLY IMPLANTED PLACENTAS IN SUCCESSION

BY D. C. DAVIES, M.D., COLUMBUS, WIS.

[Read before the Wisconsin State Medical Society September 15 1883.]

By placenta prævia we mean the real position of the placenta and placental seat, it being situated over some portion of the lower segment of the uterus instead of at the fundus or side walls of that viscus. When the placenta is implanted so as to completely cover the internal mouth of the womb, it is called placenta prævia centralis, but when it only dips down to the margin of the os internum it is called placenta prævia lateralis or partialis. It is said that normally the placenta is attached to the fundus or side walls of the womb, and the usual position is to the right or left, generally to the right, but that in certain cases it is growing to that portion close to, or immediately over the internal mouth of the organ which constitutes the abnormal condition of our subject matter, and the cause or causes of which are as yet far from being satisfactorily established.

Although this placental mal-position only occurs, according to Meadows, once in about 500 cases of labor, and according to Luck "not quite one case in 1,000," yet I can say that it has been my good fortune to see, on an average, more than one case for every year of the sixteen years which I have practiced medicine, and that, too, in a country practice. The two cases I am about to report occurred in succession, with only five days intervening between them, and their similarity in so many respects being so striking and peculiar, I have deemed them worthy of a record. That it should fall to my lot to witness so many cases of placenta prævia, when the rarity of such abnormalities is, as already stated, as one in 500 or 1,000 cases, is only equalled by the fact that I have only witnessed one case of breech presentation, although the frequency of this class is as one in fifty labors, during that same number of years, barring out, of course, those cases occurring in plurality births and those artificially made into footlings, etc.

Appropos to this subject, I will also, with your permission, recall what may properly be called a coincidence, and which I deem sufficiently worthy of mention here, videlicet, when taking leave of my esteemed preceptor (of whom I can say, as a scholar, as a gentleman, and as a true type of the physician, his superior is not easily found) when about entering on the duties of my profession, he saw fit to give me some valuable advice in obstetrics, and among other things, he especially warned me against being led astray by unusual occurrences, such as placenta prævia, hour-glass contractions, etc., as too many young practitioners were wont to be. "For," said he, "in a practice of some twenty years, I have met with but few cases of the kind." But, nevertheless, he impressed upon me the necessity of recognizing all such abnormalities whenever they happened my way.

However, it so happened that the very next week, in the city of Portage, during the absence of

ner, the late Dr. Waterhouse, I was called to attend my first case of labor, and which proved to be one of the worst and most forlorn cases of placenta prævia it has been my fortune to attend, the unfortunate parturient having been under the charge of an ignorant female doctor for at least twelve hours before I was called to the case, and, on account of the enormous quantity of blood lost she was not only exsanguinated, but pulseless, and in all respects bordering on the moribund state. From that first case to the present day the same good fortune as to cases of placenta prævia has followed me uninterruptedly, as the following cases, to some extent, can attest.

CASE I.—On November 12, 1881, I was called to attend Mrs. J. P., a multipara, a native of Wales, possessing good constitution and vigorous health, in her 30th year of age, and in her sixth confinement I reached the place of her residence about midnight, and found the patient in bed, in the supine posture, head depressed and hips elevated, with cold wet cloths applied to the hypogastric region. While in the act of examining her, I discovered that both upper and lower extremities were ligated, the first above the elbows, and the latter above the knees, and that the extreme or distal end of each limb was, on account of the impeded arterialization of the blood, in a livid or cyanosed condition. On inquiry, I found that the patient was carrying out a plan which her mother had adopted many years since, while laboring under like circumstances, and which method, she averred, proved entirely effectual in arresting the hæmorrhage until the arrival of the physician, several hours afterward. This, then, was my first lesson in the use of ligatures around the extremities, as a means of hemostasis in uterine hæmorrhage, and, in this particular case, I have no doubt that it proved of some avail. After removing the obstructions, I immediately passed my hand into the vagina, and found the os sufficiently dilated to admit of two fingers, and, finding a severe gush from the uterus, I at once, as is my invariable practice under like circumstances, swept my index and middle fingers between the placenta and the uterus, and succeeded in separating their connection, to the extent of the length of my fingers, which operation at once lessened the severity of the hæmorrhage. Finding, however, on auscultation, that the foetal heart indicated much exhaustion, I concluded to at once turn and deliver, and, as soon as the os could be sufficiently dilated to admit of my hand, and, after slight digital dilatation, I found the os responding readily to my manipulations, even to the extent of admitting the hand. I then searched for a passage between the placenta and uterus, but finding none, I concluded to perforate that organ, which I did with the greatest ease, and after which, I turned and delivered, the product of my efforts being a male child, of the avoirdupois of seven pounds. The placenta soon followed, and the patient made as good, if not as rapid, a recovery, as after any of the previous labors, and, in corroboration of this fact, and also for the purpose of showing fecundity which is able, under certain adverse circumstances, I will state that on August 1882, six months from

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last labor, I delivered the same woman of a viable child subsequent to the first case, I was called to attend Mrs A J, a multipara, a native of Germany, of good physique and excellent health, in her thirty-sixth year of age, and in her sixth confinement I found the patient, from excessive loss of blood, much exhausted, as well as wearing the pallor of death, being barely able to speak above a whisper.

A noted but ignorant midwife (lately imported from the land of Gambrinus), had been in attendance all day, having, in the mean time, administered to the unfortunate parturient several draughts of some "black stuff," which no doubt was the fluid extract of ergot. Finding no progress, save that of hæmorrhage, she concluded about dusk to inform the family that "she guessed labor was indefinitely postponed," consequently she would retire to her home, and if it would be necessary, at any time to call her to do so at once, as she averred that when the "baby came" it would be "very much quick in a hurry." The husband called me about midnight, and on examination, I found the os much contracted and unyielding, barely admitting the point of the index finger, and, no doubt, the immediate result of ignorant administration of the oxytocic. However, persistent and unyielding digital dilatation finally forced the os to dilate sufficiently to admit of two fingers, when I concluded, as far as the length of my utero-placental relation, as before, to separate the fingers would permit, and, on account of the renewed and severe paroxysm of hæmorrhage, and the dilatability of the os and cervix after the detachment, I concluded, as in the other case, to perforate the placenta, enter the uterus, turn and deliver, which I did with ease and celerity, the result of my efforts being a dead female child of the weight of six pounds. The placenta, as in most cases of mal-implantations, soon followed, and the mother made a good, but not as rapid, a recovery, as she of the first case.

I am fully aware that many authors condemn the practice of perforating the placenta—that such practice is fraught with danger to both child and mother—but I firmly believe, especially in cases where the placenta is centrally implanted, the hæmorrhage in alarming gushes, and the life of the mother and child in imminent danger, that the method which I adopted offers a safer and speedier means of relief than any other plan known to me. The process of perforating the placenta, by insinuating the fingers through its spongy tissue, is easily and quickly accomplished, this same process, so easily and quickly accomplished, we can successfully control the hæmorrhage, then the moment the fingers are passed through, we have seen that by each of these successive movements, not only completely plug the os, but we also bring an amount of compression to bear on the bleeding portions of the placenta and cervix, that is at once sufficiently effectual to arrest the hæmorrhage, and, not only this, but when the arm and hand are withdrawn, the legs, hips, trunk and head of the child, are brought down in succession (or in an uninter-

rupted course of plugging from the start), and, as a consequence, they again, in their turn fulfill the same office, only in a more efficient manner, until the child is born, and the impending danger is averted. Another fact in favor of this mode of procedure, is the dilatability of the os and cervix in cases of placenta prævia hæmorrhage, for I know whereof I speak, when I aver that the uterus, from loss of blood in these cases, is rendered more passive and dilatable, and consequently, version is made easier of accomplishment than in any other mal-presentation, a fact which I discovered as soon as my fingers broke up the utero-placental attachment of my first case, some sixteen years ago, the os and cervix having relaxed and dilated with a rapidity unknown to me under any other condition or circumstance. There fore, with these facts before me, I believe that, with out a doubt, *perforation, version and delivery*, and that true method of dealing with placenta prævia centrals, too, at the *earliest moment practicable*, is the only protection and safety to the life of both mother and child. Whether the patient is greatly exhausted from excessive flooding or not—whether she is, from sanguination, hovering as it were, on the "border land," while her attendant is on the "ragged edge" of despair, it matters not—for I believe that in all cases, where the os and cervix uteri is dilated or dilatable, (and, as already stated, this condition is rarely absent in cases of excessive placenta prævia hæmorrhages), that immediate resort to this plan of procedure is our imperative duty, and, with a full consciousness of the importance of the subject, I am ready and willing to be placed on record, as saying—that, *without a doubt, rapid perforation, version, and delivery, offers the easiest, speediest, and safest chance of life to the child, and recovery to the mother of any manner or mode of management heretofore advocated and known to me.* Many of those treated by me, on this same method, were so far exhausted (and whose prostration was so appalling that death seemed inevitable) as to make me doubt the propriety, as well as the advisability, of doing anything in their behalf, but believing as I do, whenever I am called to the bedside of even so forlorn a case as some of these appeared to be, that it is my duty to do something, and that something my very best. I have been gratified in each and every case, to see, after the removal of the fœtus and secundines, a return of vitality and consciousness, as well as complete reaction and restoration. It is no wonder, then, that I am of those who firmly believe that a patient cannot be so far exhausted as to render turning too hazardous an undertaking, especially when we know that the very life of the parturient is depending on the successful removal of the contents of the uterus. The Mickawber-like inactivity of some physicians, in the presence of so great a lesion as that of placenta prævia, by adopting the policy of "folding the hands," or "let alone," as if a correction of their mistakes of nature could be ameliorated by their own mistaken notions of "let alone," is to me, not only *culpable*, but *criminal*.

structed intestine for about a week, was 35 or 40 years old, and in the main had good health. The patient presented the following condition: Tenderness and tympanitis over the whole abdomen, right side of abdomen most prominent and resonant, pulse 130, respiration 24, stercoraceous vomiting, skin cool, and tendency to collapse. Rectal examination revealed nothing. After a careful and thorough discussion, it was unanimously agreed to make an abdominal section, entertaining the idea that the patient labored under intussusception, looping of the intestine, or some other form of acute obstruction.

After administering chloroform, and drawing off the urine, the abdomen was laid open from the umbilicus to the pubes. The intestines, distended to their utmost, gushed out. The venules and arterioles distributed upon their surface were turgid with blood and plastic with lymph, and so thinned by the distribution that they were semi-transparent. This distension was somewhat relieved by piercing the gut with an aspirator needle. Now, after carefully examining the jejunum and ileum, no obstruction was found, except at a point within $2\frac{1}{2}$ inches from the ilio-cæcal valve, and extending thereto. The large intestine was free from inflammation, except in the vicinity of the obstruction, and was empty. Here we had an organic stricture of the intestine, and its location was of such a character as to preclude resection. So distended was the intestine from its fluid and gaseous contents, that it was opened in two places, and nearly a gallon of fluid matter allowed to escape, after which the intestine was nicely sutured, and returned to the abdominal cavity, which was carefully sponged and dried. The abdomen was carefully sutured with silk, and supported by a wide flannel bandage. The question of artificial anus was not taken into consideration, because of the condition of the patient, who died soon after the wound had been dressed.

Case Second—In June, 1881, I visited Mrs. M., in consultation with Dr. J. C. Whitlock, and Dr. Job Cooper. This lady had always been of good health, was about 36 years old, and the mother of several children. Occasionally she had light attacks of colic, from which she easily recovered, without applying to her physician. Some six or seven days prior to my visit she had one of these attacks, and not getting as prompt relief as usual, her husband sent for Dr. Cooper, and subsequently Dr. Whitlock. The gentlemen failing to remove the intestinal obstruction after using every legitimate means, requested me to come and make a laparotomy.

The patient presented the following condition: no action from the bowels for six days, great nausea and vomiting, and had cast up stercoraceous matter, was very restless, with occasional pain around the umbilicus, pulse 120—respiration 20, skin warm and perspiring, with a temperature of 102 F. The abdomen was very considerably swollen, intestinal resonance distinct over nearly the whole surface, rectal examination revealed nothing. Now, after carefully weighing every feature and symptom in this case, we unanimously agreed that nothing short of abdominal section, offered any hope of relief. Both

the patient and her husband, and children, were anxious the operation should be done. The preparations for the operation were carefully made, and no detail, however trifling, was omitted. The abdomen was carefully cleansed, as well as the sponges, instruments, and the hands of those who should assist, with carbolic acid solution. To Dr. Geo. Campbell, of this city, the chloroform was intrusted. After drawing off the urine, I opened the abdomen from the umbilicus to the pubis in the usual manner, and when the omentum was turned aside the small intestines gushed out together with a considerable quantity of red serum, and what remained of this fluid was carefully sponged out. The peritoneum was greatly inflamed, as well as the entire intestinal tract, and upon its surface patches of lymph were to be seen everywhere. The small intestines were greatly distended, partly by its fluid contents, and by gas. The intestine was pierced by a large aspirator needle. The gas was allowed to escape. After carefully tracing the whole intestinal tract, to our great surprise, no obstruction was found at any point of its course, and we learned to our chagrin and disappointment, that we had been deceived in our diagnosis, and that this case must be accounted for on the grounds of inflammatory action and paralysis, from over-distention. In order to more effectually relieve the over-distended gut, the intestine was carefully opened, and a gallon of highly offensive fluid, was allowed to escape. Now, after closing the intestine with the glove suture, and the abdomen sponged out and dried, the abdominal wound was accurately adjusted, and held in place by silk sutures, and, over which, a large compress wet in carbolic acid solution, was placed, and held in position by a wide flannel bandage. The shock in this case was fearful—the operation lasting 40 minutes, and it was several hours before reaction was established. After this was done the patient expressed herself as feeling better. Opium and calomel, directed in moderate doses every 3 hours, and belladonna in small doses every 4 hours, with compress wet with solution of carbolic acid, kept continuously over the abdomen. This lady survived the operation about 24 hours.

REMARKS

I place on record these two fatal cases of gastro-enterotomy because they were fatal, secondly, that they resulted from the direct effects of acute inflammatory action, and not the remote effects, as from organized fibrinous exudation, thirdly, that our diagnosis was fallacious. In either of these cases, so soon as the peritoneal cavity was opened, and the extensive inflammation revealed, together with the red serum, the result of this grave action, there could be no doubt of the prognosis, whether the obstruction be relieved or not. The unavoidable gushing out of the bowels, their consequent exposure to the air for some time, and the subsequent enterotomy, was ample to account for the shock in both cases.

Further, it will be readily observed that diagnosis is of the first importance, which should be determined in the onset of the case and if delayed many complications must arise which would preclude accu-

racy of diagnosis, and when doubt exists, an exploratory incision is warranted

When a hernia is recognized, and taxis fails, we count it good surgery to release the incarceration, and all experience teaches the longer the delay the greater the danger. Unhappily, no taxis except in an indirect way, can be resorted to in concealed intestinal obstruction, and hence the greater necessity of prompt diagnosis and corresponding surgical action

MEDICAL PROGRESS

ACTION OF ALCOHOL ON THE HEART—The following is quoted from an article by Professor Martin, of John's Hopkins University, in the Maryland Medical Journal for September, 1883

Although the physiological effects of alcohol manifest themselves in many directions, we can only hope to arrive at valid conclusions by taking up the questions one by one. Our own researches made on dogs have been confined to a quite limited field, viz what is the direct and immediate action of alcohol upon the heart, both as to its rate of beat, and as to the work done by it in a given time. Chronic abuse of alcohol of course affects the heart, but our inquiry has hitherto been limited to the immediate action upon the heart of a moderate quantity of pure alcohol added to the blood flowing through it, the heart being put entirely out of control by extrinsic nerve centers, and isolated from all other organs but the lungs. In other words, our problem was What is the immediate action, if any, exerted upon the heart by a single dose of ethylic alcohol?

As regards action upon the pulse-rate, our experiments confirm those of Zimmerberg and others, alcohol in doses not directly poisonous does not affect the rate of beat of the heart

As to the influence of alcohol upon the work done by the isolated heart we have, however, obtained some results which we believe to be new

Our method of experiment was as follows. A dog having been placed fully under the influence of morphia sub cutaneously injected, its heart and lungs were isolated in the manner which I had the honor to describe to this Faculty two years ago.¹ The heart was then fed with defibrinated blood obtained by the previous bleeding of other dogs, and supplied to the superior vena cava, under a constant pressure from Mariotte bottles. These bottles were four in number, two of them arranged to contain and distribute blood containing no alcohol, and two of them blood containing alcohol. By stopcocks any bottle could at will be connected with the heart. At the commencement of the experiment the heart was fed with blood mixed with one-fourth its volume of 0.75 per cent solution of sodium chloride in distilled water—2,000 cubic centimeters of blood mixed with 500 cubic centimeters of the salt solution. This blood, passing from right auricle to right ventricle, was sent through the lungs to the left heart,

and from the left ventricle was pumped out into a tube connected with the right carotid artery. The aorta was ligatured immediately beyond the origin of this vessel. The tube connected with the right carotid conveyed the blood to a height sufficient to maintain about an average arterial pressure, as measured by a mercury manometer connected with the root of the left carotid. The pen of this manometer recorded on the kymograph not only the average arterial pressure, but the pulse rate. Uniform and free artificial respiration was maintained by a water engine

The mode of work was as follows. One of us took charge of the kymograph, and was also responsible for time signals. All being ready, the heart was placed in connection with a flask containing good blood and allowed to pump blood from this flask into another. Let us call the four flasks A, B, C, and D respectively. When flask A was empty and B filled, it was easy, by opening and closing the proper stopcocks, to supply the heart from B and let it pump into A, and so on, to and fro, with the good blood for a certain time. At short intervals the blood pumped out by the heart in a minute was collected separately and measured. As soon as it was found that this work was pretty constant, varying not more than 10 cubic centimeters in a minute, the good blood was shut off and the poisoned blood from C turned on, this was pumped into D and collected there. While this poisoned blood was circulating, the quantity pumped out by the heart was measured from minute to minute, then good blood again turned on, and the measuring continued. Any experiment in which the heart did not under these circumstances show marked recovery from the action of the alcohol was rejected, so as to avoid the risk of ascribing to the alcohol something which was possibly due to the independent death of the heart

The general result of our experiments may be primarily stated as follows. *Blood containing one-eighth per cent by volume of absolute alcohol has no immediate action on the isolated heart. Blood containing one-fourth per cent by volume, that is two and a half parts per thousand of absolute alcohol, almost invariably remarkably diminishes within a minute the work done by the heart, blood containing one-half per cent always diminishes it, and may even bring the amount pumped out by the left ventricle to so small a quantity that it is not sufficient to supply the coronary arteries, hence blood is drained off by them from the outflow tube and at last none is pumped out from its upper end at all*

We may here point out that the dose of alcohol was not a priori a large one. A man weighing 150 lbs contains about 11½ lbs of blood, one quarter per cent of this is 0.46 of an ounce, a quantity exceeded by that in a single ordinary drink of brandy, and some people take a good many such drinks in a day. Moreover, the alcoholized blood in our experiments could hardly have acted on the heart as it flowed through its arteries, it must almost certainly have acted on it before it flowed through the coronary arteries, and came into contact with the heart.

¹ Transactions of the Medical and Chirurgical Faculty of Maryland, 1882 p. 203

tissues To get to these capillaries it had first to circulate through the lungs, and there is no doubt some of even the small quantity of alcohol present was eliminated

What is the cause of this diminution in the quantity of blood pumped out?

Differences in the flasks and rubber tubes being excluded as causes of the phenomenon, we have to seek for it in some action exerted by the drug on the living organs, and here several possibilities suggest themselves It might be that the alcohol constricted the pulmonary vessels, and so prevented the blood from reaching the left ventricle as freely as before, or it might be that it dilated the coronary arteries and so drained off more blood through the coronary circuit, and thus left less to be pumped out from the exit of the outflow tube, or it might be that the pumping power or the capacity of the left ventricle was altered, or, of course, there might be combinations of these

We were set on the right track one day when we modified the experiment by cutting away the pericardium before administering the alcohol To our surprise, even blood containing $\frac{1}{2}$ per cent of alcohol now had little or no effect on the work done by the heart

We tried this repeatedly in another manner Keeping the heart in the pericardium, we administered alcohol and got the usual result, then recovered the heart by good blood, cut away the pericardium, again gave alcohol, and now with little effect As the absence of the pericardium could hardly in any conceivable manner prevent constriction of the lung arterioles, or prevent dilatation of the coronary vessels, it was clear that neither of these would account for the results of the administration of alcohol

Our attention was therefore turned to the proper heart substance Direct observation of the organ, in fact, showed it to become enormously distended when supplied with the alcoholized blood Normally, the dog's ventricle contracts so as to completely empty itself and obliterate its cavity Under the influence of alcohol this is entirely changed, the ventricle ceases to contract completely, even at the height of its systole the organ completely or nearly completely fills the pericardiac sac, in its diastole it has little or no room to expand further and take in a fresh supply of blood

Hence a great diminution in the quantity of blood which it has ready to pump out at its next contraction If now the pericardium be cut away, the heart enlarges enormously in diastole, takes in its usual quantity of blood, and drives it out at the systole, hence the organ performs its usual amount of work This seems to show that the muscular power of the organ is not at first influenced, if the heart be not confined in the pericardium, and the quantity of alcohol in the blood flowing through it does not exceed $\frac{1}{2}$ per cent by volume, the work done is not affected, at least for a considerable time It is not the contractile power, but the elasticity of the cardiac muscle that is influenced, its "tone" is lowered, and it works under new, and, when the pericardium is present, very unfavorable conditions It acts like a

greatly relaxed muscle, which contracts to half its normal extent, compared with a healthy muscle, in good tonic state, which when fully extended is shorter than the atonic, and whenever it contracts, contracts more completely, and, so far as the heart is concerned, to the fullest possible extent If, however, the administration of alcoholized blood of $\frac{1}{4}$ or $\frac{1}{2}$ per cent be long continued, or if blood containing 1 per cent of alcohol be used, then, even with the pericardium removed, the systole becomes feebler and feebler, the work done less and less, and finally nil

Whether alcohol directly combines with the cardiac muscular tissue, or whether it indirectly influenced it by interfering with its nutrition, we are not able to say The rapidity with which the effect manifests itself seems in favor of direct poisoning, on the other hand, the dog's heart will only bear a very brief deprivation of oxygen, and it has been shown that alcohol added to the blood makes it hold its oxygen more firmly and yield it less readily to the tissues, and the heart subjected to alcohol has very much the appearance of the heart of an asphyxiated animal On the whole, we are inclined to think that the poisoning is direct

We have made a few experiments to see what dose of alcohol given by the stomach to a dog will produce some similar action on the heart When the heart lies in the body and in connection with the central nervous system, there are of course considerable difficulties to be overcome, and all we can say as yet is, that to get any distinct influence on blood pressure, one must put much more alcohol into the stomach than an amount equal to $\frac{1}{4}$ per cent of the total blood in the animal It is either not absorbed fast enough to reach at any moment the heart-poisoning limit, or, more probably, is picked up by other organs, very likely the liver, and held back from the heart

We then tried in another way, by directly injecting into the jugular vein of a curarised dog a small quantity of salt solution containing an amount of alcohol equal to $\frac{1}{4}$ per cent of the total blood of the animal, reckoned as one-thirteenth of its weight In such cases we found usually a very temporary enfeeblement of the heart, indicated by a lower arterial pressure, but this seems only to last while the injected solution is flowing through the organ, or for a few seconds afterward Before the blood returns it has apparently deposited its alcohol elsewhere in the body, or at any rate got rid of it somehow, so that it no longer acts immediately upon the heart, at least to a directly noticeable extent

SALICYLATE OF BISMUTH IN TYPHOID FEVER—This has been recommended lately, and to any desirous of testing its virtues the following, from the *American Journal of Pharmacy* for September, may be of interest

Dr Desplat, who is favorably known by his numerous theses on the antiseptic treatment of fevers, especially by a memoir published last year on the treatment of typhoid fever by carbolic acid, after long experimentation with various salicylates in typhoid fever, has found the salicylate of bismuth the great

desideratum In his experience it has even had a marked abortive action Out of twenty cases reported by him eleven treated in the first stage were cut short in four or five days under the free use of salicylate of bismuth The ordinary dose is about a scruple This was repeated, so that the daily quantity taken should equal about six grammes

This salt is comparatively unknown in this country As it is not readily prepared by double decomposition from the other salts of bismuth with salts of salicylic acid it can only be formed as a sub-salicylate This salt is a soft white powder, insoluble in water, without separating the salicylic acid on heating to boiling, but it is readily soluble in dilute muriatic acid when boiled, the salicylic acid separating on cooling, in flocculent white crystals Care must be taken in its preparation to avoid too much heat, as the tendency is to convert the salt into ordinary oxide of bismuth and salicylic acid Whether it is superior to the salicylates of the cinchona alkaloids is not mentioned, but if its value as a remedy should be owing to its difficult solubility, possibly they may prove as efficient, for the salicylates of quinine and cinchonidine are very difficultly soluble in water, and would hardly be as likely to prove irritants in case of violent inflammation of the diseased vitals, where, if particles of undecomposed salt of bismuth could aggregate, might produce very dangerous results

USE OF NAPHTHOL—The following opinions were expressed in regard to the usefulness of this drug, at the meeting of the American Dermatological Association, Aug 29 Dr Van Harlingen found it of great service in scabies, also of some value in the treatment of psoriasis In parasitic skin diseases it was of but little use, while in eczema and hyperidrosis it was entirely without value

Dr Fox had tried it externally in almost every case where he could possibly employ it, and had become convinced that it fell far short of taking the place of tar In a few cases of eczema of the scrotum and anus he had obtained very satisfactory results from the application of a five-per-cent ointment For psoriasis of the scalp and face the ordinary white precipitate ointment has served more satisfactorily

Dr Hardaway did not find it as useful as chrysophanic acid in psoriasis and eczema In the fissured and squamous eczema of the palms of the hands and fingers he had employed a fifteen per cent ointment successfully

Dr Stelwagon thought for psoriasis of the scalp that it was less valuable than white-precipitate ointment It is efficient for scabies

Dr Piffard thought it a dangerous remedy

Dr Taylor had used it successfully in scabies, but in psoriasis it had not proved efficient

SEXUAL DIFFERENCES IN THE SURFACE OF THE BRAIN—Attention is called to the following facts of interest by Dr Thomas Dwight in an article in the *Boston Medical and Surgical Journal* for September 6

Very little notice has been taken of the influence of sex in the size and shape of the brain, and more

especially the convolutions, in spite of the great attention the subject in general has received Nearly thirty years ago Huschke maintained that differences in the convolutions of the male and female brains could be detected He stated that as a rule the fissure of Rolando was more nearly vertical in woman than in man, so that the distance of the top of the fissure from the posterior end of the brain was relatively greater in the former Consequently in man the frontal lobes, and in woman the parietal, were relatively the larger, and the female brain was rounder Recently Professor Rudinger, of Munich, has taken up this subject, and has turned his attention to foetal brains He states that in most male foetal brains the frontal lobes are more massive, broader, and higher than in female ones, that the convolutions in the female foetus of seven or eight months are much simpler than in the male He finds, also, that the fissure of Rolando is more oblique in the male than in female, and consequently there is more cerebral matter in front of it in the former and behind it in the latter Dr Passet has also devoted himself to the study of these questions, and has made careful measurements of twenty male and seventeen female brains The fissure of Rolando, he finds, is more oblique in the male than in the female, and is also longer and more curved It lies both absolutely and relatively further back in man, in other words there is more cerebral matter in front of it The male brain is prettily clearly longer, broader, and higher than the female As the male brain is the larger, it follows that the fissure of Rolando is more distant from both the coronal and lambdoidal sutures than in the female The parieto occipital is usually in front of the lambdoidal suture in both sexes, but is likely to be more distant from it in the male

EGYPTIAN CHOLERA—The further investigations are carried in reference to the origin of the severe cholera epidemic in Egypt, the more probable it appears that the disease was of local origin As bearing upon this subject, the following will be read with interest

A letter from Cairo to the *London Standard* says "Dr Schaffey Bey, who was dispatched by the Egyptian government to report on the origin of the outbreak of cholera in Damietta has issued his report After giving an account of the almost incredibly unsanitary state of the town and of the mode of life of the inhabitants, Schaffey Bey finally concludes that the theory of the importation of the disease from India is altogether untenable, and he draws up his conclusions as follows

"We find that besides the points already noted, which stamp Damietta as the type of an unclean town, there are the following circumstances to be considered

"1 The mouth of a river dried up by prolonged drought, with its banks and part of its muddy bed fermented under the sun's action, exposed

"2 This river carrying along with it (and depositing them at the bend formed at Damietta) thousands of carcasses of animals which it throws up at its edges, to putrefy under the damp heat

"3 It is at this place the river receives the outcome of the drains, animal and vegetable refuse, and all sorts of filth which the current cannot carry off, being beaten back by the waves of the sea

"4 The miasmata generated by all this putrefying matter here mixes with the vegetable effluvia rising from the marshes, from a soil full of organisms, and from the wide rice-fields which surround the town

"5 It is the water of this river which supplied all the needs of most of the inhabitants and of more than fifteen thousand persons from various parts of Egypt who assembled at Damietta for eight consecutive days at the fair of Sheikh Abou el Maati. An analysis of this water by the government expert proves it to teem with impurities

"6 During the eight days of the fair regular orgies were held, exclusively of the flesh of animals who died of bovine typhus, and whose skins now fill the store-houses of the town

"7 It was immediately after the fair that the disease broke out

"8 The 19th, 20th and 21st of June were marked here by a sudden rise of temperature

"9 The epidemic broke out chiefly in the most unhealthy and thickly populated quarter, inhabited by the poor, who drank only the water of the river and canal

"10 The disease remained for some time localized at Damietta before spreading further, and its spread was invariably in the towns on the river, or carried by sick emigrants from Damietta, as proved by the towns of Port Said, Alexandria, Ismailia and Suez

"These facts seem to prove that the same conditions, cosmic and hydrotelluric, which are present at the genesis of cholera germs in the Indian delta, and on the banks of the Ganges, were accidentally observable this year in the Egyptian delta and on the banks of the Nile"

There is much more of interest in the report, but the above extracts give the pith of it. From personal knowledge of the town of Damietta, I am able to vouch for the accuracy of the description of it. As to the remarks on the water supply, they hold good more or less in regard to any town in Egypt. It is probable that Dr Hunter, on his return from the inspection he is now making, will be able to add further to our knowledge of the cradle from which cholera sprang this year

A parliamentary paper has been issued, containing a report from Surgeon-General Hunter, to Sir Edward Malet, on the cholera epidemic in Egypt. The report, which is dated Cairo, Aug 6, states that "it is simply an abuse of words to talk of sanitation in connection with Cairo, every sanitary law being grossly set at defiance," and adds, that "conditions for the development and spread of disease in almost every form, epidemic or otherwise, abound. They are here, there, and everywhere present to the sight, smell and taste." After expressing the opinion that in all essential features the type of the epidemic does not differ from cholera, as it is experienced in India, Surgeon-General Hunter proceeds

"It is gratifying to be able to state that the epidemic is on the wane, although still widespread over

the country, and the type, as usual in declining epidemics, is much less severe. The number of deaths from this disease, reported up to the 31st of July, is said to be 12,600. Registration is, however, so defective, that this statement must be taken with much reservation. I am inclined to think that it is nearly double this total. The organization of the medical department is in a most primitive condition, and many of its officers are quite incompetent. The latter are broadly accused of being ignorant, and of neglecting their duty through personal fear. That there are many honorable exceptions to this rule, I believe, nevertheless, the allegations preferred, have come to my personal knowledge. In pleasant contrast to this I would observe that the Egyptian soldiers are loud in their gratitude for the devotion displayed by their English officers to their necessities, during the present crisis." Dr Hunter suggests the thorough reorganization of the medical department, and the establishment of a sanitary department

THE eighth annual meeting of the American Gynecological Society will be held at Philadelphia, from the 18th to the 20th of this month. It is expected that the following members will read papers: Dr J. F. Johnson, of Washington, on Superinvolution of the Uterus; R. S. Sutton, of Pittsburg, on Importance of Cleanliness in Surgical Operations; C. D. Palmer, of Cincinnati, on Some Points Connected with the Subject of Dysmenorrhoea; T. A. Reamy, of the same place, on Unusual Form of Abdominal Tumor; A. R. Jackson, of Chicago, on Ischiectomy of the Uterus a Justifiable Operation; G. Kimball, of Lowell, A Sketch of Dr. Nathan Smith; C. C. Lee, of New York, on Management of Accidental Puncture and Other Injuries to the Gravid Uterus as a Complication of Laparotomy; E. W. Jenks, of Chicago, on A New Method of Operating for Fistula in Ano; G. J. Engelmann, of St. Louis, on Ergot, the Use and Abuse of this Dangerous Remedy; H. L. Campbell, of Augusta, Congenital Fissure of the Female Urethra, with Extrophy of the Bladder and Menstruation After Extirpation of the Ovaries; W. H. Byford, of Chicago, Remarks on Chronic Abscess of the Pelvis

THE University of Niagara has established a medical department in Buffalo. The course of study will be graded, and will extend over four years. Each annual course will continue for six months. Examinations are to be conducted by a board of medical men, unconnected with the faculty. The lectures will be given for the present at the Hospital of the Sisters of Charity. The first session will commence on the 10th of next month

THE Municipal Council of Paris has recently voted the sum of \$400,000, to be devoted to repairs and additions to hospitals already existing, and \$200,000 toward the erection of a hospital for the treatment of chronic diseases, a hospital for small-pox cases, and a children's asylum for incurables

THE

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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THE AMERICAN MEDICAL ASSOCIATION.—In the present number of this journal will be found the complete paper read by the President of the Association in the Section on Medicine of the British Medical Association, at its recent meeting in Liverpool, with illustrative cases. It relates to a question of decided practical importance, which is liable to confront the practitioner at any time, and in almost any department of his work. But reference to the chief officer of the Association, reminds us that now is the time for all who desire to improve both the quality and quantity of important work done in its several Sections at the next meeting, which is to be held in Washington, to enter at once upon the necessary preparation. The plan of organization is favorable for good, practical work. The number of Sections affords a sufficient division of labor to accommodate alike the general practitioner and the special cultivator of any one of the more limited fields of science or practice. Only two things are necessary to make the practical results of the working of the several Sections at each anniversary meeting not only highly satisfactory and profitable to those who may attend, but also such as would do honor to the profession of this or of any other country. The first is that each member of the Association should attach himself permanently to some one of the Sections, in which he should cultivate a special interest, and for the practical working of which he should feel conscious of a certain degree of personal responsibility. This would speedily increase both the stability and efficiency of each Section, and greatly encourage the

officers of each in the prompt performance of their duties. The second is the devotion of more time and thought to the selection of the topics and the preparation of the papers and discussions that are to occupy the time of the Sections at each successive meeting.

For instance, those who are intending to present papers or the results of any original investigations at the next meeting, should commence their work early in the season, that it may be fully completed before the time of meeting, and they should notify in proper time both the officers of the section in which they propose to work and the Chairman of the Committee of Arrangements, of the nature and extent of the matter they intend to present, that the said officers may have the opportunity to assign such proposed work to a proper place on the programme. But in addition to such voluntary contributions, each section, through the recommendations of a judicious sub committee appointed for that purpose, should select a certain number of questions for investigation and discussion at the next annual meeting, or plan certain lines of original investigation, and assign them to members specially qualified for the work, with instructions to report progress at each subsequent meeting until their work was completed. Such a course persistently carried out would cause the regular annual meetings of each Section to be well attended, and crowded with important matters for the consideration and profit of its members. The excuse for non-action heretofore made by many prominent members of the profession, that communications, however valuable, if made to the Association or any of its Sections, would be completely buried out of sight for nine or ten months, and then only appear in a volume that would reach but a few hundred members, no longer exists. The establishing of a weekly medical journal, each issue of which already goes to more than three thousand representative members of the profession, distributed in every State and Territory of our country, affords a speedy and ample medium through which all matters of importance communicated to the Association or any of its Sections, can be promptly presented to the profession at large.

Let every member and officer of the Association think of these things, and act accordingly.

EPIDEMIC DISEASES.—According to the latest advices from Pensacola, no cases of yellow fever had occurred in that city, and notwithstanding some reports to the contrary, careful inspection from house to house has not discovered the virus outside.

of the grounds belonging to the Naval Station. But few new cases have occurred within the Naval Station during the past week, and it is thought that the disease is on the decline there. No cases are known to exist in any other places in our country outside of quarantine stations to which they may have been taken from infected ships.

It is said that an epidemic form of dysentery of considerable severity is prevailing at Bybala, in the northern part of Mississippi, from which over sixty deaths have already occurred.

CHOLFRA—Since the cholera epidemic in Egypt is steadily declining, and the fears of an immediate invasion of Europe, somewhat allayed the English government officials, as well as the newspapers and medical periodicals, begin to manifest some irritation at the severe criticisms and accusations that have been freely indulged in by the press on the Continent and especially by that of France. The main charge of having needlessly permitted the introduction of the disease into Egypt from India rather than interfere with her commerce, is explicitly denied by the proper officers of the English government, and repelled with much indignation by some part of the English press. Our advice is that all parties preserve their dignity by holding their temper in subjection, until the numerous scientific and sanitary commissions supposed to be diligently engaged in the investigation of the origin and nature of the scourge, shall have made their reports. Possibly we may then have a sufficient record of reliably ascertained facts to show whether the disease was really brought from India or whether it originated from the foul air and horribly contaminated water in the valley of the Nile.

PROGRESS OF STATE MEDICINE

FROM PAPERS PRESENTED TO THE OFFICERS OF THE SECTION ON STATE MEDICINE

In the last preceding number of THE JOURNAL we copied the report of the representative member of the Section on State Medicine from Illinois concerning the practical working of the State Board of Health of that State, both in its relations to State sanitation and the regulation of the practice of medicine, and also the report of the representative of the medical staff of the U S Navy. We now make the following selections of such facts from the reports of representatives from other States as are thought worthy of record. Dr D E C Ewing, of Arkansas, reports as follows:

"We have forty or fifty local Boards of Health, located throughout the State, in the cities and incorporated towns. They are under the control of the municipal authorities of the cities and towns in which they are located. They act in concert with the State Board of Health to prevent the spread of contagious diseases.

"Our last General Assembly failed to make any appropriation for the maintenance of the State Board of Health. I fear, if we should be visited by an epidemic of yellow fever or small-pox, the State Board would be unable to make the necessary quarantine to protect our people against such epidemic, for want of funds to defray the expenses that would necessarily occur.

"On March 9, 1881, an Act to Regulate the Practice of Medicine and Surgery was approved by the Governor, and went into effect the 1st of July following. This act requires registration in the county clerk's office of each county in the State, establishes a board of three medical examiners in each county, and a State Board of five members, to act in case of appeal from the county board.

"All who shall have practiced medicine, surgery or midwifery in the State for five years preceding the passage of this act, are exempt from examination before the board, and upon proof of two creditable witnesses known to the clerk of said county where they reside, are allowed to register, and be vested with all the privileges of regulars. This law is very defective, but was the best we could get passed by our General Assembly at the time.

"March 9, 1881, the Governor approved an act regulating the sale of poisons. The law requires the druggists to keep a register for the purpose of registering the names of persons buying such (medicine designated as poison), and to register the name of purchaser and kind and quantity purchased, with date of same.

Dr Charles Denison, of Colorado, reports that the laws creating and defining the duties of the State Board of Health and the State Board of Medical Examiners for that State have undergone no change during the past year. The last legislature, however, passed a law for legalizing dissections and permitting the bodies of paupers, dying in public charitable institutions, not claimed by friends for burial, to be used for that purpose.

Dr J T Reeve, of Wisconsin, reports the following concise and interesting items in regard to sanitary measures in that State:

1st Wisconsin has an organized State Board of Health.

2d No changes in its organization have taken place, except the appointments of Prof W W Daniels and of Dr S C Johnson in the places respectively of Dr E L Griffin, formerly President of the Board, and General James Brintiff, one of the original members, both of whom resigned, and the election of Dr S Marks as President of the Board to fill the vacancy caused by the retirement of Dr Griffin.

No new powers or duties have been given the Board, but a closer bond of union has been established between it and Local Boards

3d A law enacted this past winter makes obligatory the organization of Local Boards of Health, in a sense auxiliary to this Board, in every town, village and city in the State. This law is yet too new to enable me to say anything definite regarding its workings, but every effort possible is being made to put it into efficient, successful working order. Thus far, about 700 of such Local Boards of Health have been reported to this office and additional reports come to us daily

4 The same law referred to (copy enclosed) makes obligatory the reporting of contagious diseases by all physicians to their respective Boards of Health and also requires the report of such cases by the Local Boards to this Board. The diseases specified are Small-pox, scarlet fever, diphtheria, Asiatic cholera, or "other dangerous contagious diseases"

5th No changes have been made in laws providing for the collection of vital statistics, and such statistics are now collected in such a way as to make the returns which are received of no practical value for sanitary purposes

My answer to your last question "How can medical men best promote sanitary progress?" in the briefest possible form would be. By the dissemination in popular form and by persistent efforts of that *and that only* as true, which is clearly proven to be so. I very much fear that the "advanced ideas," the setting forth as truth, that which is simply theory and the consequent necessary shifting of ideas and of teachings of medical men and medical organizations also, on sanitary questions, have retarded State and municipal sanitation

Dr F D Cunningham, of Virginia, furnishes the following brief statement concerning the present status of sanitary measures in that commonwealth

"1st There is no State Board of Health in Virginia at present. Several years ago the Legislature appointed one, but gave it no funds and assigned no specific duties, so that its existence, if any, is only nominal

"2d The cities of Richmond, Norfolk, Lynchburg, Petersburg, Staunton, Alexandria, and Danville have local Boards, with limited powers under municipal charters

"The last Legislature authorized certain cities, as above, to make vaccination compulsory, during the past winter. Whilst our legislative bodies have practically ignored the subject of public sanitation in the places above named, the local boards have been reasonably active, and have done much to diminish the amount of contagious diseases, especially in the matter of small-pox and scarlet fever. In this State there is no examining board, nor is any education, medical or otherwise, required to obtain a license to practice medicine. In fact *any one* can get a license by paying five dollars to the State, in spite of all of our efforts to the contrary up to this time, both by individual and concerted action, the Legislature. All of which is respec

From the brief report of Dr M G Parker, representing Massachusetts, we copy the following items

1 Massachusetts has a State Board of Health, Lunacy and Charity, which performs the duties of a State Board of Health, under the existing laws of the State

2 No changes have been made during the past year in the organization, powers and duties of the Board

3 It has no auxiliary, or local organizations

4 Our public statutes specify only small-pox. The interpretation of the words "other diseases dangerous to the public health" are left to the discretion of Local Boards

5 I also enclose a bill passed at the present session to compensate physicians and others for returning certificates of births. The fee allowed by the law is twenty-five cents for every certificate returned

In closing this report I cannot do better than report to the Chairman of the present Board the advice given to the Board last year by my worthy predecessor Professor Henry I Bowditch, M D, of Boston, Mass., when he says

"That State hygiene should not be connected with the charities certainly, and I doubt also whether it should be hampered by the care of lunatics of the State. Hygiene is enough for any Board

"Again, I would suggest that all State Boards of Health should have physicians as Secretaries and Chairmen, and the majority should be physicians, and, finally, I deem it all-important to have a lawyer, a man of business, and a civil engineer, upon every Board"

From the report of Dr Van S Lindsly, of Tennessee, we copy the following

2 No changes since the law of '79, except a vital registration law, by which the Secretary of the State Board of Health, was made the Superintendent of Vital Statistics. The reports being made

1st By physicians and midwives, to the senior magistrate of each civil district, and they reporting to the County Court clerks, and they to Secretary of the State Board of Health. This law was repealed by the Legislature of '83

The law was practically inert—there being no remuneration to physicians, midwives or magistrates, they took no interest in the matter, and have made no reports. All parties concerned in the active operation of the law of vital statistics, opposed it, and made such efforts as to cause its repeal at the last Legislature, '83

4 No changes made. The diseases enumerated as dangerous and communicable, etc., are small-pox, yellow fever, cholera and other epidemic diseases

It is within the powers of the Board to determine what are the other epidemic diseases

Medical men promote sanitary progress

1st I hope true and

senting their ideas in plain language, before the people, in such journals and prints as will reach them

2nd By lectures before teachers and all those who have the instruction and guidance of the young, so that the incoming generation may have the proper ideas instilled into them as they grow into positions of responsibility and trust. The young will carry home ideas to parents, and often become the best propagators of new ideas to their elders

I think the crude and imperfect methods of presenting sanitary reforms and the apparent mistakes of would-be reformers, in pushing so-called advanced ideas and radical measures of medical men and medical organizations, have retarded State and municipal sanitation. But this is no reason why better and wiser efforts in the future may not succeed

The representative from Rhode Island, Dr James H Eldridge, makes the following concise statement

1st *There is a State Board of Health in Rhode Island, organized April, 1878*

2d No changes have been made during the year ending May 1, 1883, in the organization, powers or duties of the Board

3d The public statutes make the town councils of the towns, and board of aldermen of the cities, the local Boards of Health, which are required to make report to the State Board when called upon, as by chapter 83

Sec 6 *The Secretary of the said Board shall make inquiry from time to time, of the clerks of town and local Boards of Health, and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill health, and also in relation to the proceedings of said Boards of Health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively, and the said clerks of town and local Boards of Health, and the said practicing physicians, shall give such information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge*

Town councils and boards of aldermen have also power to appoint other local Boards of Health, responsible to the appointing authorities, and with such power as the statutory local Boards are disposed to confer

Some towns have so-called Boards of Health or Health Officers with limited powers by appointment of town council. The city of Providence has a Superintendent of Health

There are also two independent or volunteer Sanitary Associations in the State

4 No changes have been made in the Public Statutes during the year in regard to communicable diseases

Very efficient laws in regard to small-pox have been in force for a number of years, and the disease has

never been allowed to get any extension from the original cases

No children are allowed to enter the public schools without efficient vaccination. The present Secretary of the State Board of Health introduced a bill in the General Assembly fourteen years ago requiring the towns to furnish gratuitous vaccination annually, and five years ago, for compulsory vaccination previous to entering the public schools

Town councils may define what may be considered contagious or infectious diseases within their respective limits, and the statutes give the councils large powers in the restriction and prevention of the same

5 No changes have been made in the statutes in relation to vital statistics. Some towns have passed an ordinance during the year requiring a burial permit from the town clerk previous to the removal of any deceased body, for the purpose of obtaining more prompt returns of death

We have not space for selections from the remaining papers of this class, in the present number

REVIEWS

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE-HOSPITAL SERVICE OF THE UNITED STATES FOR FISCAL YEAR 1882

The first part of this book is occupied by the annual report of the Surgeon-General, John B Hamilton, to the Secretary of the Treasury. Following this are tables giving statistics in regard to the Marine Hospital service, and then selected cases from the hospital practice. This latter section contains accounts of many very interesting cases, both medical and surgical. The first of these essays is on "Cases of Rheumatic Effusions in Joints Treated by Aspiration," written by Surgeon H W Sawtelle. W H Heath has prepared "Notes on the Heatonian Method for the Permanent Cure of Hernia." These notes were made upon 17 cases which he had operated. Twelve cases proved successful, two were failures, two improved, and one met with an accident and resulted badly.

H R Carter describes a case of "Stab-Wound followed by Artificial Anus," on which a successful operation was performed. Chas E Banks has an excellent and quite exhaustive article on "Aneurismal Varix," and describes a case in illustration. Cases of "Aneurism" are described by C A W Wheaton, C E Banks and C S D Fessenden.

T W Miller gives the history of a case of epithelial cancer which he removed, but which speedily recurred, and resulted in death.

The first of the medical cases described is one of "Molluscum Fibrosum," by A C Hamlin. It is well illustrated by a micro photograph. An account is also given of "Three Cases of Small-Pox" by W D Stewart.

The next ninety pages contain reports of fatal cases with autopsies. These include cases of a great variety of diseases, and are of much interest.

In the Appendix is an account of the "Hygiene of Steamboats on the Ohio River," by Walter Wy-

man He finds in most cases no provision made for quartering the deck hands and laborers on the boats The results of his investigations into this subject are expressed in the following sentence "The man who ships as ordinary seaman in a whaling vessel, bound for a three years' cruise in the Arctic seas, stands a greater chance of returning with his life and health than does he who labors for one or two cold, winter seasons upon the deck of an Ohio River stern wheel passenger steamboat"

TABULÆ ANATOMICÆ OSTEOLOGIÆ Edited a CAROLO H. VON KLEIN Cincinnati Lithographic Co

The object of this book is to furnish figures of all the bones of the human body on which the points of interest are plainly designated There is no text except the names and explanation of the points referred to in each figure The peculiarity of the volume is that from the title-page to the end it is in Latin, except one short page of introduction which is in English The value of such a work depends wholly upon the accuracy of the plates in their detail The figures are not uniformly good In many, points are referred to that cannot be seen at all, and very many others that cannot be plainly seen For instance, on Tab III, showing "caput ab anteriori," the place where the "sutura coronalis" should be is designated, but none can be seen in the figure The same thing is true of the "apertura anterior canalis maxillæ inferioris s foramen mentale," and very many more could be pointed out in other figures The plates are not equal to those in Gray's Anatomy

THE ESSENTIALS OF BANDAGING, With Directions for managing Fractures and Dislocations, for Administering Ether and Chloroform, and for using other Surgical Operations, and containing a chapter on Surgical Landmarks Illustrated by 136 Engravings on Wood, By BERKELEY HILL, M B, Lond F R C S, 5th ed, pp 341 New York, J H VAIL & Co

In the term "Bandaging" the writer seems to have hit upon a general title which he makes to cover all the minor surgical appliances and manipulations

Many of the topics discussed are in no way connected with the use of bandages as in the chapter on drawing teeth, the use of catheters ophthalmology, etc

The book is a moderately complete treatise on that large class of mechanical procedures embraced neither by the principles of surgery on the one hand nor in operative surgery on the other, and falling, therefore, into neglect at the hands of those students whose clinical advantages have been curtailed *Hospital Interne's Guide* would have been an accurate title for the work It does in fact furnish in an admirably clear and simple form many chapters of practical information which will go far towards making up the deficiencies of those who have lacked hospital advantages

It is growing more patent each year that the success of all surgical procedures depends largely upon the perfection of the minutie of preparation, operation and after treatment This result inevitably

follows the development of specialties within specialties in large cities It is in the knowledge of these minute details in which chiefly the educated general practitioner feels his deficiency, and, as these minor though essential particulars of modern surgery are being yearly improved in the hands of practical men, he feels more or less helpless in trying to keep up to the latest improvements in a wide range of diverse specialties

Precisely the wants of such persons are attended to in the above work The author has had the good sense to adopt a practical as opposed to a "systematic" arrangement of his topics Elaborate and theoretical bandages with queer, obsolete names and many tails—bandages which look well only on a healthy limb, or a manikin before a class, are banished as they should be—and clear, concise and adequate directions are furnished for adjusting and dressing each of the fractures and dislocations, after the most approved method, or methods now known

The elementary lessons describing the names and uses of bandages, and the bandaging of different regions are simplified and condensed so as to occupy but twenty-five pages of the three hundred and forty one pages composing the book

Careful instructions follow in the use of eye and ear syringes, the care of bed sores, of hot and cold baths and irrigation, of trusses, of leeches, cupping, drainage tubes and issues

The various anæsthetics and their means of administration are described Full directions for antiseptic draining, the best methods of employing boracic acid, iodoform and chloride of zinc, and how to apply Leoitir's tubes will be found in the fifth chapter A considerable portion of the book is occupied with a description of the surface guides (surgical landmarks) of the various regions, and in an appendix are complete tabulated lists of the instruments and other apparatus necessary for each of the more common surgical operations

The author very properly lays stress upon the value of carbolized oil (1 to 10 or 20), which although very early advocated by Lister, for a variety of purposes has not been properly appreciated in America

The book is to be commended for its fairness in expressing not only English but American methods of practice and is worth the examination, not merely of students, but of nearly every physician who has to deal with surgical cases

OBSERVATIONS ON THE MANAGEMENT OF ENIGRIC FEVER, ACCORDING TO A PLAN BASED UPON THE SO CALLED SPECIFIC TREATMENT Read before the College of Physicians, of Philadelphia, January 3, 1883 By JAMES C WILSON, M D, Physician to the Jefferson Medical College Hospital, and to the Philadelphia Hospital Extracted from the Transactions of the College of Physicians, 3rd Series, Vol VI

This is the title of a neatly printed pamphlet of only thirteen pages, but containing matter of interest concerning the treatment of one of the most common and important diseases with which the practitioner

has to deal. That the expectant and alcoholic treatment of typhoid fever which has predominated in the profession during the last twenty years is unphilosophical, and attended by a ratio of mortality altogether higher than it would be under any system of treatment founded on the rational indications afforded by a study of the clinical history and pathological changes developed by the disease, we have had occasion to point out many times, and to demonstrate by reference to statistical results. It is therefore in accordance with the natural tendencies of the human mind, to pass directly from an unsatisfactory expectancy to a search for specifics. It is in obedience to this tendency that during the last decade we have had in succession the treatment by cold baths, heroic or anti-pyretic doses of quinine, salicylic acid, digitalis, and finally mercurials, iodine, and salicylate of bismuth, as specifics.

That calomel can be made useful in the treatment of the early stage of typhoid fever by its judicious administration in the early stage, was demonstrated by the common practice of the mere skillful part of the profession, half a century since.

That iodine, not as a specific, but as a general alterant is well calculated to counteract the universal molecular derangements existing in this fever, is capable of being so administered as to very favorably modify the progress of the disease, has been demonstrated by myself and others during the last two years. But our present object was simply to call attention to the specific plan recommended by Dr Wilson in the paper before us, which is as follows:

So soon as the patient is found to have enteric fever, or, in many instances, so soon as his symptoms warrant a reasonable suspicion that he is about to develop it, he is put to bed, ordered a diet consisting of milk, animal broths, jelly, and simple custards, in small amounts, and at intervals of two or three hours. At night he is given a dose of calomel. This dose varies in amount from $7\frac{1}{2}$ to 10 grains (0.5 to 0.66 gramme), and is repeated every second evening until three, or rarely four doses have been administered in the course of the first six or eight days. It is given alone or in connection with sodium bicarbonate. There is probably a slight increase of diarrhœa, if it be present, without aggravation of the other symptoms, and in some instances the tendency of the temperature at this time to steadily rise, appears to be controlled. If, as is frequently the case, spontaneous diarrhœa has not occurred in the first week, the calomel usually brings about two or three large evacuations on the day following its administration, not more. In either case, the tendency to frequent passages in the latter stages of the attack is favorably influenced by the repeated administration of this drug during the first week. If the case does not come under observation until after the tenth day, one only, or at most two doses of calomel are given. No further doses of it are, however, given during the course of the attack, unless constipation occur. In this event, if the evidences of extensive or deep implication of the intestinal wall, such as abdominal pain, tenderness, or marked tympany are absent, calomel in $7\frac{1}{2}$ -grain (0.5 gramme) doses is given at intervals of three or

four days. If there is reason to suspect serious intestinal lesions, the lower bowel may be more safely emptied of its contents every third or fourth day, by enemata of moderate size (8 to 10 fluid-ounces). It is necessary to bear in mind that the gravest lesions of the gut, leading even to hæmorrhage and perforation, have occasionally been observed in cases characterized, not only by constipation, but also by an entire absence of pain or tenderness, and very moderate tympany. The danger of salivation from calomel in these doses in enteric fever appears to be slight. In only one case in sixteen were the mercurial fetor and slight swelling of the gums observed.

Excessive diarrhœa has been controlled by the use of opium, either in suppositories, containing 1 grain (0.06 gramme), or by the mouth in quarter grain (0.016 gramme) doses, often associated with bismuth and given *pro re nata*. It is an invariable rule that the patient be kept in the horizontal position and to the use of the bed-pan and urinal, from the time of the recognition of the disease until deservescence is completed. He is, however, turned upon his side from time to time, and made to maintain that position for twenty or thirty minutes, if necessary, being supported by the nurse.

From the beginning of the attack the following mixture is regularly administered in doses of one, two, or even three drops, in a sherry-glassful of ice water after food, every two or three hours during the day and night:

R	Tinct iodini,	f3j	8		oo c c
	Acid carbolic liq	f3j	4		oo c c
	M				

Unless some unusual circumstances occur to render a change necessary, this medicine is not suspended until the attack draws to a close. It is well borne by the stomach and excites no repugnance on the part of patients. In one case only has it been necessary to omit the carbolic acid on account of the disgust caused by its odor.

Partly for the sake of its favorable influence upon the skin and for the sake of cleanliness, partly because of its favorable though slight influence upon the temperature, the patient is to be sponged twice a day with equal parts of aromatic vinegar or alcohol, and cold water. If it is more grateful to him, this sponging may be done with tepid water, the evaporation of an extensive film of water not below the temperature of his body probably being not wholly without a refrigerating tendency.

When the evening axillary temperature reaches 104° F (40° C) quinine in massive doses, 24 to 30 grains (1.66 to 2.00 grammes) is given upon a falling temperature. I usually direct 8 to 10 grains to be given in solution at 5, at 5.30, and at 6 A. M. the following morning. Administered thus at the decline of the temperature in its diurnal revolution, these large doses of quinine depress it from 25° to 35° F (14° to 18° C). After the lapse of forty-eight to seventy-two hours, if necessary the dose may be repeated. If these doses be rejected by the stomach—an unusual circumstance—half the quantity of quinine may be administered hypodermically. For this purpose a citric acid solution is to be pre-

ferred Since the adoption of the plan of treatment under consideration, I have not encountered cases attended with such hyperpyrexia as has rendered attempts to control it by cold baths necessary or even advisable

The minor nervous symptoms are best held in check by skilful nursing For the relief of the headache of the first ten days absolute quietude, a dim light, etc., are often sufficient, occasionally the bromides alone or in combination with chloral are required Later in the course of the disease chloral is unsafe From the end of the first week the patient cannot be left unattended even for a few minutes, without risk Persons in whom delirium was only occasional and transient, have in many instances destroyed themselves during the momentary absence of the nurse

The considerations which led me to adopt the plan of treatment indicated in the foregoing sketch, are

1 A feeling of dissatisfaction regarding the expectant method of treating enteric fever This feeling, vague at first, grew more definite and stronger with increasing clinical opportunities, and a fuller knowledge of the natural history of the disease, until it became a motive, impelling me to cast about for some different and more satisfactory plan This feeling has been, during the past decade, a very general one in the profession in all parts of the world, as is attested by an almost endless succession of journal articles setting forth new plans of treatment, and the use of new drugs in the management of this, the most common and most important of the acute infectious diseases of the present epoch in medical history Most of the plans thus suggested have led to disappointment when tested by the fuller observations of the profession, many of them have failed to attract general attention, and some few are still *sub judice* Their number and diversity bear witness to a widespread distrust of the once well-established expectant treatment This distrust is, however, based upon something more tangible than a mere feeling of dissatisfaction The statistics of all observers whose cases have been sufficiently numerous to be trustworthy, show enteric fever to be, when treated by the expectant plan, a disease of high death-rate

The percentage of fatal cases rarely falls below 15 per cent, and often exceeds 25 per cent, according to the hospital records of this country, Great Britain, and Continental Europe Jaccoud, with a collection of 60,000 cases, observed a mortality of 20 per cent, Murchison, in 27,051 cases, 17.45 per cent, Liebermeister, in 1718 cases, at Basle, under an expectant plan, records 27.3 per cent of deaths But turning from broad generalizations to personal experience, who is there here that, many times elated by the happy issue of mild or average cases treated by the expectant plan, has not realized the sense of utter powerlessness attending it when he has stood face to face with cases in which *to do*, rather than *to wait*, has been necessary to save life

2 Enteric fever is the very type of the general diseases, of affections *totius substantiæ* The tissues are universally implicated in the morbid processes, no function of the body wholly escapes perturbation

For this reason, plans of treatment suggested by the prominence of certain groups of symptoms, or by the known lesions of particular organs, even though of undoubted benefit as far as they go, are in theory unsatisfactory, because they are directed in effect against conspicuous manifestations of the cause of the sickness, rather than against the cause itself

Whilst in actual practice the treatment by turpentine, by alcohol, by opium with lead, or the silver nitrate, or by agents capable of controlling the febrile movement, as quinine, digitalis, salicin, and the salicylates, even the cold-water treatment itself, although at times and in the hands of certain clinicians showing favorable results—all these have failed of general acceptance on the part of the profession

3 The general character of the disease, the specific nature of its cause, the unsatisfactory results alike of an expectant and of a symptomatic plan of treatment, or rather of the two combined, have united to render the idea of a specific treatment, a true cure for enteric fever, a most attractive one, to stimulate thoughtful observers to renew again and again the disappointing search for it To this idea may be traced the treatment by the mineral acids, by chlorine-water, by carbolic acid, by quinine alone, by quinine and digitalis, by iodine, by the potassium iodide, by calomel

4 Not only is the conception of a specific treatment for specific diseases a most attractive one, and the attainment of such a treatment for enteric fever brought within the bounds of a reasonable hope by the analogy of syphilis and the malarial diseases, but the search after it with due caution and judgment has also the warrant of the very highest medical authority

The *total number of cases treated* by this plan is sixteen, all recovered, one being now in the second week of convalescence

Of these, eight were severe, the temperature reaching or exceeding 104° F (40° C)

Of these eight severe cases, one was characterized by uncontrollable vomiting, in the third week. The patient retained no food taken by the mouth for five consecutive days

One case was very irregular in its course, and was complicated by an obscure abdominal abscess which discharged by the bowel The temperature in this case on two occasions attained 105° F (40.5° C) This case presented the characteristic eruption of enteric fever

A third case was prolonged by a severe relapse

Of the eight cases in which the observed temperature did not at any time attain 104° F (40° C), and which were therefore looked upon as medium or mild cases, one was complicated by crural phlebitis, and another by the occurrence of intestinal hæmorrhage

The average duration of the eight severe cases was about 31 days, that of the eight mild and medium cases was about 25 days

Of the whole number ten were treated in hospital, six in private practice All from the time of their coming under observation were under my personal care

MEDICAL SOCIETY PROCEEDINGS

At the late meeting of the American Dermatological Association, held August 29 to 31, at Sagamore House, on Lake George, Dr Piffard, of New York, read a paper on the treatment of acne. *Ætiology*, he declared, was the main thing to be examined into. In acute cases the calx sulphurata in small doses was thought to be excellent, also bromide of arsenic. Locally hot water applications were recommended, sometimes a weak belladonna or stramonium ointment proved beneficial. In chronic cases the sulphide of calcium must be pushed. In some ergot, and in others the bichloride of mercury prove useful. Dr Graham, of Toronto, presented a paper on Exfoliative Dermatitis. He thought the disease more common than is usually supposed. He recognized two varieties, one he called dermatitis exfoliativa rubra, the second dermatitis bulbosa et exfoliativa. Dr Stelwager read a paper on Impetigo Contagiosa. He had examined a great many cases, but failed to find in the vesicles any fungus such as has been described by Kaposi and Piffard. Micrococci, such as are to be seen in pustular eczema he discovered, but none of the supposed characteristic fungus, except in a few dried crusts. He regards the disease as an acute systemic affection, capable of auto-inoculation, as not parasitic, not related to vaccinia, but a distinct and separate disease.

Dr Atkinson, of Baltimore, read a paper on a case of Multiple Cachectic Ulceration. It occurred in a child. At first there was some itching and papulation, then vesiculation, and finally ulceration, which extended down to the bone. There was much debility, but not a great deal of pain. Tonics, it was thought, were indicated. Prognosis was good, although deep scarring was liable to occur.

Dr Van Harlingen read a paper on the use of naphthol. He thought it useful in scabies, somewhat so in psoriasis, but of little use or hurtful in eczema.

Dr Fox described a trip to the leper settlement at Tracadie. There were there twenty-four lepers. Three cases he thought were not leprosy. The patients, although receiving no medical treatment, were well cared for. In regard to the disease, he said that on account of its rapid spread at times through communities, it could not be transmitted by heredity alone. He thought, that like syphilis, it was directly contagious. In the way of treatment much has been accomplished, in some cases by the use of large doses of nux vomica, internally, and shaulmoogra oil, externally.

A paper on Paget's disease was read by Dr Sherwell. There was in these cases burning and itching, like eczema. The nipple was gradually obliterated, its retraction, when it occurred, could not be distinguished from cancer. Its malignant papillary character distinguished it from eczema. The duration of one case observed by the author, was over twelve years, and a second lasted longer than the time assigned to it by Paget.

Dr Morrow, of New York, read a paper on the Pathogenesis of Drug Eruptions. He described the various theories that have been offered to explain

their origin. He himself thought they were due to a neurotic action.

Dr Taylor, of New York, described the Polymorphous Changes Observed in the Tubercular Syphilide, and illustrated the subject by a number of colored photographs.

In a paper by Dr Sherwell, of Brooklyn, the belief is expressed that pseudo-psoriasis of the palm is indication of a syphilitic taint, and he related a case in example. Dr Alexander, followed, with a paper describing cases in which no syphilitic taint could be detected.

A paper was then read which had been written by Dr Hyde, of Chicago, on the Coincidence of Syphilitic and Non syphilitic Affections of the Skin.

Dr Taylor, of New York, described a peculiar appearance of the initial lesion of syphilis. He had had opportunity to examine several cases from the very beginning. In two he noticed first one or more spots quite small and silvery-white, looking as though they might have been caused by touching the mucus membrane with the tip of a crayon of nitrate of silver. A few days later a papule develops, and then the typical chancre. In other cases there first appears a round, excoriated spot, quite minute and dark-red. In still other cases the papule sicche of French authors, first appear. A paper from Dr Duhring, was read on cases of Lupus Erythematosus, which was greatly helped by the following formula,

R Zinci Sulphatis

Potassi Sulphureti

$\bar{a}\bar{a}$ 5 ss

Aquæ Rosæ

5 iii ss

Alcoholis

5 iii

The surface to which this is to be applied should be first thoroughly cleansed of crusts, etc.

A second paper, by the same author was read, on Ainhum, with microscopic examinations, which went to show that the member had been strangulated by a cord or other means, applied intermittently.

Dr Hardaway, of St Louis, described a chronic papular eruption, which occurred mostly in children. It was characterized by its dull, light yellow color, its psudo-vesicular appearance. Usually each papule is about the size of half a pea. It is slightly itchy. Spontaneous recovery occurred.

Dr Graham, of Toronto, described a case in which there was a peculiar new growth on the skin of the fore arm. It resembled elephantias or lymph angioma. It is of very rapid growth, now hanging like a bag from the arm. When the limb is raised it diminishes much in size. He thought it a dermatolytic outgrowth with dilatation of the lymph channels.

The following are the officers for the ensuing year: Dr R W Taylor, of New York, President, Dr A Van Harlingen, of Philadelphia, and Dr J E Graham, of Toronto, Vice-Presidents, Dr W Alexander, of New York, Secretary, Dr G H Rohe, of Baltimore, Treasurer. The next meeting will be held in September, 1884, at West Point.

DR FISCHER, a Privat-Docent, has been appointed extraordinary Professor of Surgery at Strassburg, and Professor E Baumann goes from Freiburg to Breslau as ordinary Professor of Physiology.

MISCELLANEOUS

AMERICAN PUBLIC HEALTH ASSOCIATION

We again call attention to the coming meeting of this important national organization by giving the following notice received from the Secretary—[ED]

SECRETARY'S OFFICE—PRELIMINARY CIRCULAR

12 PEMBERTON SQUARE, BOSTON, }
July 16, 1883 }

The American Public Health Association will hold its Eleventh Annual Session at Detroit, Mich., commencing Tuesday, November 13, 1883, and ending Friday, November 16

The subjects which have been chosen for special consideration at that time are

I **MALARIA** Its etiology and the methods for its prevention in localities or in persons, its American history, its specific particles, its origin, the conditions of its pervasion, its laws of extension, etc

II **FOODS** Their adulterations, healthy or deleterious modes of preservation and the function of legislation in regard to them Ascertained facts as to adulterations in this country Facts as to canned goods, condensed milk, artificial butter and cheese, prepared meats, etc

III **VITAL STATISTICS** Methods and results, defects apparent How far foreign modes of tabulation are to be followed Systems of collection and classification Race vitality and the care of population as indicated by statistics

IV **THE CONTROL AND REMOVAL OF ALL DECOMPOSABLE MATERIAL FROM HOUSEHOLDS** The mechanical laws, constructions and appliances relative thereto The construction of all inside pipes and their connections, their traps and syphonage, flushing, ventilation How they shall be connected with outdoor receptacles, and yet be free from ill effect

The Executive Committee by this outline desires to avoid general dissertations on these subjects, and to secure facts and opinions as to practical methods of dealing with the interest of public health Reasons for the views entertained, the results of experience and the best judgment as to preventive and restrictive measures are especially sought

Methods and systems of Physical Education, drill, etc., feasible in the school-room, will be discussed While papers of merit on other topics are by no means excluded, it is believed wise to concentrate the preparation of papers and discussion upon these topics

The Special Committees on Compulsory Vaccination, the Management of Epidemics, and on Diseases of Animals, will, before the completion of their Reports, be glad to receive communications from any who have facts or opinions bearing on these subjects

Active and Associate Members have the same consideration in the presentation of papers, and in discussion Gentlemen who propose to present papers are respectfully requested to notify the Secretary by September 1, and to give the titles of their proposed papers

The Executive Committee insists that a synopsis of the papers to be offered, and statement of the time

required for reading, be sent to the Secretary by October 15, and that the paper complete be in the hands of the Secretary at least three days before the meeting, having been sent by mail or express either to his office at Boston, or care of Dr Wm Brodie, Detroit, Mich., after November 9

The Executive Committee feels warranted in saying that the meeting promises to be one eminently inviting and profitable, and urges the attendance and co-operation of physicians, engineers, architects, teachers, and all those interested in the advancement of public health and physical well being

Inquiries of a local character may be addressed to Wm Brodie, M D, Chairman Local Committee, Detroit, Mich

A later circular, giving such detailed information as to local points, programme, transportation, etc., as may be available, will be issued in due season before the meeting

If any member entitled to them has failed to receive Vols VII or VIII of the Transactions (Savannah and Indianapolis meetings), the Treasurer, Dr J Berrien Lindsley, Nashville, Tenn., should be notified

EXTRACT FROM CONSTITUTION ART III

The members of this Association shall be known as Active and Associate The Executive Committee shall determine for which class a candidate shall be proposed The *Active* members shall constitute the permanent body of the Association, subject to the provisions of the Constitution as to continuance in membership They shall be selected with special reference to their acknowledged interest in, or devotion to sanitary studies and allied sciences, and to the practical application of the same The *Associate* members shall be elected with special reference to their general interest only in sanitary science and shall have all the privileges and publications of the Association, but shall not be entitled to vote All members shall be elected as follows

Each candidate for admission shall first be proposed to the Executive Committee in writing (which may be done at any time), with a statement of the business or profession, and special qualifications of the person proposed, on recommendation of a majority of the Committee, and on receiving a vote of two thirds of the members present at a regular meeting the candidate shall be declared duly elected a member of the Association The annual fee of membership in either class shall be five dollars

By order of the Executive Committee

AZEL AMES, JR, *Secretary*

The following, as we learn from the North Carolina *Medical Journal*, is the gist of the new medical practice law of Mississippi

It requires that no person shall practice medicine until he shall have received a license, and registers, that a Board of Censors shall be established in each Congressional District to examine into the qualification of applicants, the Board of Censors shall be composed of two sanitary commissioners, and if these disagree in their opinions about the qualifications, that the record of examination shall be forwarded to the Secretary of the State Board of Health to decide, that the examination of candidates shall be in writing, and that no discrimination shall be made against the applicant on account of the system of practice he may advocate, that applicants shall be examined only on anatomy, chemistry, obstetrics, materia medica, physiology, pathology, surgery, hygiene, that

the license when issued by the Board of Censors shall be registered, temporary license may be granted by the Secretary of the State Board of Health in the interval of the meeting of the Board of Censors, but no longer, that physicians now practicing shall receive license without examination upon showing certain requirements, applicants for license making false statements shall be adjudged guilty of a misdemeanor, and liable to \$25 fine and revocation of license, that "practice of medicine" shall be defined "to suggest, recommend, prescribe or direct for the use of any person, any drug or medicine, appliance or other agency, whether material or not material, for the cure, relief or palliation of any ailment or disease of the mind or body, or for the cure or relief of any wound, fracture or other bodily injury, or any bodily deformity," for fee or reward, excepting females solely engaged in midwifery, that peripatetic quacks shall not be licensed, that judges shall give grand juries at every term a copy of this act, that to violate this act is a misdemeanor punishable by a fine of not less than \$50, or more than \$500, or by imprisonment in the county jail

THE Pennsylvania and Maryland Union Medical Association held its sixth annual meeting near Chambersburg, Pa., on the 30th of August, Dr W W Dale, of Carlisle, Pa., in the chair. It is composed of representatives from the medical societies of the counties of Franklin, York, Lancaster, Chester, Lebanon, Cumberland, Perry, and Dauphin, in Pennsylvania, and Harford and Cecil, in Maryland. Dr J L Zeigler, of Mount Joy, was elected President for the coming year, Dr S B Keefer, of Carlisle, and Dr John Lineaweaver, of Columbia, Vice-Presidents, and Dr S I Rouse, of York, Secretary and Treasurer.

IN the last issue, we called attention to the trouble that had arisen at the College of Medicine and Surgery in Montreal. Since then we learn that a telegram has been received from Cardinal Simeoni, at Rome, allowing the school to open as usual.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY FROM AUGUST 31, 1883, TO SEPTEMBER 7, 1883

Shufeldt, Robert W., Captain and assistant surgeon, granted leave of absence for three months on Surgeon's certificate of disability, with permission to leave the Department of the South (Par 3, S O 204, A G O, September 5, 1883.)

Wikeman, W J, 1st Lieutenant and assistant surgeon, assigned to temporary duty at Fort Sidney, Nebraska, (Par 2, S O 92, Department of the Platte, August 28, 1883.)

NECROLOGICAL

FORD, LEWIS DESAUSEURE, M D, of Augusta, Georgia, was born at Washington's headquarters, Morristown, New Jersey, December 30, 1801, died at his

residence in Augusta, August 21, 1883. Having received a good academical education, he studied medicine, and after attending the usual course of lectures, he received in 1822 the degree of M D from the College of Physicians and Surgeons of New York. The same year he removed to South Georgia, and thence to Augusta in 1827. Dr Ford assisted in organizing the Medical College of Georgia in 1832. He was elected to a professorship in the institution, and has held a chair in it up to within the last two years, when he resigned. He has held at different times the chair of Chemistry and that of Practice. He was learned, popular, and practical. He was laborious and painstaking in all his work, and beloved by all who knew him. He was at the same time one of the oldest physicians and oldest citizens of Augusta. His portrait adorns the City Hall in recognition of his having been a worthy Mayor of Augusta. Doctor Ford contributed some valuable papers on paroxysmal fevers, as seen in the South between the years 1836 and 1845, and published in the *Southern Medical and Surgical Journal*, and are frequently referred to by writers. He was a member of the Georgia Medical Society. He attended the meetings of the American Medical Association in 1849 and in 1851. He leaves a wife, three sons and three daughters. Two of his sons are members of the profession which their father adorned, and labored so zealously to advance in usefulness and dignity. Dr Ford's funeral took place from St Paul's Episcopal church, and was very largely attended. The City Council and the medical profession attended in a body.

J M T

RAINES, THOMAS R., of Atlanta, Georgia, was born in Bibb county, Ga., in 1833, died, after a brief illness, at his residence in Atlanta, August 31, 1883. The doctor was descended from one of the oldest families of the colony and the State. He received a good preparatory education, and was well grounded in his profession, and actively and profitably employed in it when the war broke out. Dr Raines entered the military service of the Confederacy, and devoted himself to the relief of the suffering of his companions until the cause went down at Appomattox. Broken in health and in fortune, he returned to his State and took up a residence and large practice at Atlanta, and by his worth and devotion to its duties soon acquired business, and the confidence and respect of the community. Gov Colquitt, during his first term of office, appointed Dr Raines physician to the State Penitentiary, an office which he filled, with credit to himself and to the satisfaction of the Governor, until his death. The doctor leaves a wife, two daughters, and several sons. He was a member of the Atlanta Academy of Medicine, the State Medical Society, and of the American Medical Association since 1880. Dr Raines was extensively known throughout the State, and regret for his death, both as a citizen and a physician, is very general. His funeral was attended by the "Gate City Guard," of which company he was surgeon, and by a large concourse of friends and citizens.

J M T

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

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VOL I

SATURDAY, SEPTEMBER 22, 1883

NO II

ORIGINAL ARTICLES

EPIDEMIC JAUNDICE AMONG CHILDREN

BY ALEX Y P GARNETT, M D, EMERITUS PROFESSOR
OF CLINICAL MEDICINE IN THE NATIONAL MED-
ICAL COLLEGE, WASHINGTON, D C

[Read in the Section on Diseases of Children, June 1883.]

During the summer of 1881, remarkable for its unprecedented heat as well as an unusual and widespread development of malarial fever, embracing sections of the United States rarely if ever before visited by this supposed pathogenic agent, an epidemic of acute jaundice, confined almost exclusively to children under six years of age, appeared in the city of Washington. Between the 2nd of July and the 15th of October six cases of this disease occurred within my own practice, the ages of those attacked ranging from two to six years. For the months of July, August and September twelve other cases were reported to me by other physicians, three within the service of the Central Free Dispensary, the other nine occurring in localities remote from each other, but exhibiting in every essential particular the same features as those which came under my immediate observation. It will be observed that all of these cases occurred within the limited period of three months, when the range of temperature had reached, and probably sustained for many weeks, its maximum point of elevation, but, so far as I have been able to ascertain, none of them were found in those parts of the city supposed to be especially exposed to the influence of malaria or any other mal-hygienic conditions, militating in this respect directly with the theory that the disease owed its origin to any limited local cause. Whilst I have, in common with most of those who have pursued the practice of medicine in Washington for many years, repeatedly met with sporadic cases of catarrhal icterus in both adults and children, it has not hitherto occurred to me to meet with this disease in the form of an epidemic confining its attacks exclusively to young children, a fact which cannot fail to materially enhance its importance in the estimation of the pathologist, as well as the general practitioner of medicine. In the elaborate treatise of Von Scheuettel on biliary diseases, found in the seventh volume of Zeimssen's Encyclopedia, we find but one recorded epidemic of icterus catarrhalis confined to children alone, reported by Rhea Legg, in his admirable work on the bile,

jaundice, and biliary diseases, after tracing the first mention of epidemic jaundice to Hippocrates, devotes three pages of his work to the bibliography of this disease, embracing a period from 1742 to 1872, describes but two epidemics of jaundice confined to children—one at Essen in 1772, reported by Bruning, and one in 1870 at Hanau, by Rehm. During the same period he reports fifty-six epidemics of the disease which occurred among adults. Sir Thomas Watson mentions an epidemic affecting young girls only, and other writers report similar epidemics in which men alone were attacked. It is possible, however, that in this latter instance such conclusions were drawn from observations made at garrisons and camps chiefly occupied by soldiers, the relative number of males and females being too disproportionate to entitle such testimony to much credit. It is to be regretted that in so elaborate and exhaustive a work as that of Legg, embracing the general history of jaundice, its ætiology, symptomatology, pathology and treatment, he should have failed to describe in detail the clinical features which characterized so interesting and rare a manifestation of the disease, as the two epidemics he mentions which were confined to children. He seems to have limited himself to the mere mention of the fact, simply giving name of authors, with the date and locality of the epidemic invasion.

In presenting the history of the epidemics to which the title of this paper refers, I do not propose to include a full description of the symptoms, progress and treatment of each particular case that came under my treatment. It is believed that a very adequate conception of the disease may be conveyed by a detailed exposition of those peculiarities which characterized in a well-defined manner a single typical case. Whilst but six of the cases above referred to occurred within my own practice and came under my immediate notice through each successive stage, I am led to believe that those reported to me by other physicians presented in every essential particular the same clinical features, and may be correctly represented by a report of the following typical case.

CASE I.—A little girl of five years of age, of delicate constitution, nervous temperament, appetite at all times feeble and capricious, subject for the last three years to occasional attacks of malarial fever of short duration, came under my care on July 2, 1881, having been attacked with fever on the previous evening. At the hour of my seeing her, 11 A. M. July 2, she had a pulse of 102, temp 101.6, headache, tongue slightly red, and torpid,

may represent the views entertained by the most distinguished and progressive of our modern pathologists. I am, therefore, constrained to confine myself to a brief exposition of such crude explanatory hypotheses as have occurred to my mind regarding the *modus operandi* of hepatic influence in the production of this particular epidemic.

Among the numerous causes of jaundice reported by authors, we find mentioned gastro duodenal catarrh, extending into the bile ducts, producing in various ways obstruction to the escape of bile, diminished circulation of blood in the liver, and a consequent abnormal diffusion of bile, and diseases of the *nervous system*. That jaundice is frequently produced by the first mentioned cause, no pathologist of the present day will deny. The primary morbid impression having originated in such instances in gastric or gastro duodenal catarrh is readily transmitted along the lining membrane of the "*pars intestinalis*" of the common duct to those of the gall bladder and liver, resulting in obstruction and a diffusion of bile pigment in the general circulation. I am not prepared to admit, however, that the epidemic under consideration could have originated in any such manner. The clinical history above detailed militates directly with such a theory. By reference to that, we find that the icterode appearance of the skin conjunctivæ and other positive manifestations of diffusion of bile pigment in the general circulation, antedated the symptoms of gastric disturbance, and as the nausea and repugnance to food became the most pronounced features of the case, we are justified in concluding that no irritation of the stomach or duodenum existed prior to the development of these two significant symptoms, and consequently such irritation must be regarded as a consecutive rather than a primary element in the case. I therefore do not hesitate to discard this mode of invasion of the disease in considering the ætiology of the epidemic. Whilst the theory that catarrhal inflammation of the bile ducts is the most common cause of jaundice, and certainly seems the most popular one with writers and practitioners of the present day, when we consider, in addition to the reason above assigned, the great variety of other causes found to occasion a diffusion of bile pigment in the blood and the peculiar icterode appearance of the skin, entirely independent of any morbid condition of the larger bile ducts, we find no difficulty in recognizing the theory of mechanical obstruction as inapplicable in this case. In further support of this view, we may cite instances of jaundice produced by poisons, traumatism, bites of serpents, *icterus neonatorum*. Jaundice produced by nervous influences, excessive secretion of bile in which that fluid not having undergone decomposition or oxydation, as suggested by Murchison, and eliminated through the kidneys and lungs, as in health, is taken up in its normal state and carried along with the blood to the tissues.

Reverting to the influence of the nervous system as one of the causative agents in the genesis of jaundice, it seems to me that we here have a probable solution to the ætiological difficulty in determining the origin of this epidemic. That the function of hep-

atic secretion, as well as that of other glands, is directly controlled by and under the dominion of the nervous system, no one will deny, and that this controlling power of the nerves is frequently exercised under the emotions, is equally true. This is abundantly shown by the excessive lacteal secretion of the mother at the sight of her suckling infant, the augmented salivary secretion by the savory odor of food. Not only is this influence of the nervous system over the function of secretion thus quantitatively demonstrated, but under certain mental excitements or morbid impressions the function becomes qualitatively deranged and deleterious to the animal economy. We see this manifested by the effects of grief upon the mammary secretion of the nursing mother, the influence of anger upon the saliva of animals, transforming a harmless secretion into an active poison. Evidence is not wanting to prove that even rabies canina has been produced by the bite of an enraged dog which was in all respects healthy, sudden change of color of the hair by emotions of fear, and many other instances of a similar nature which it is not necessary to mention. Accepting these physiological truths, we can readily conceive how certain morbid impressions made upon the sentient extremities of the afferent nerves, and transmitted to the ganglionic centers, may influence the function of an organ so richly supplied with nerves and so important as the liver, one so intimately concerned with the supreme office of elaborating and metamorphosing the nutritive material introduced in the system, and adapting it to the separate offices and functions for which it is destined. We all know that the metabolic activity of the hepatic cells in the production of bile, is in direct proportion to the plus or minus degree of blood pressure. Any agent, therefore, disturbing for a given period of time the normal physiological equilibrium of blood pressure in this organ, directly and consequentially affects the secretion of bile. This fact has been repeatedly demonstrated by experiments made upon animals, showing, for example, that a section of the splanchnic nerves causes immediate dilation of the hepatic and other abdominal veins, followed by a diminution of arterial blood pressure and an increased flow of blood into the portal vein. The normal blood pressure, and consequently the normal flow of blood through the liver, is in a great measure dependent upon the active tonicity of the arteries imparted to them by the vaso-motor filaments furnished to them from the sympathetic system. It may readily be conceived, therefore, how completely the generation of bile is regulated through the direct influence of this mysterious nerve, and how easily those causes which disturb its integrity, aberrating the normality of its office, may result in derangements of hepatic circulation, followed by hyperæmia and inflammation of the liver. Among those causes, as I have already indicated, I am disposed to regard heat as playing an important part.

We are told that the French troops stationed in Pavia during the Italian wars were affected with an epidemic of jaundice, which commenced in August and terminated in October that the heat was un-

usually intense, and that the livers and spleens of all those who died were found enlarged and congested. Kirksig, describing the epidemic of jaundice in Suden Scheid in 1794, says that it raged from the end of August to the end of November, that the months of June, July and first half of August were characterized by prolonged heat, and dryness, followed by a sudden change of temperature and fall of the thermometer about the middle of August—the appearance of the epidemic commencing co-incidentally with this decline of temperature. Innumerable instances of a similar nature, showing the direct connection of protracted heat with the existence of jaundice, might be cited, accomplishing such results no doubt by certain reflex actions transmitted from the sensitive surfaces through the cerebro-spinal and sympathetic systems to the involuntary muscles and secreting organs. The hepatic congestion and cholæmia found to exist in women during the catamenial presence, disappearing and returning contemporaneously with the menstrual flow, furnishes another illustration of the effects upon the liver of reflex nervous excitation originating in the nerves of distant parts. Assuming then that the molecular processes going on in the protoplasm of the hepatic cells, necessary to the formation of bile pigment or the transformation of hæmoglobin into bilirubin, can be morbidly influenced by a disturbed condition of other organs through nervous connections, and that external causes—such as heat and cold—are capable of exerting such a power through the nerves of the integument, we are met by the question, in what manner does the deleterious agent of heat operate upon those nerves which control the function of the liver, to effect such derangement of its normal office?

Scientific research and experimentation have not yet supplied us with positive data upon which we can base a conclusive reply to this question. We can only fall back on the statements already made, and resting upon repeated experiments which demonstrate the effects upon the vascularity of the abdominal organs, including the liver, resulting from a division or a lesion of certain branches of the sympathetic nerve and by a legitimate method of logical deduction assert our belief in the theory that those branches of the sympathetic supplying the vessels of the liver, and influencing directly and potentially its office of secreting bile, when subjected to the protracted excitation and subsequent exhaustion of protecting the animal economy from the deleterious effects of prolonged heat, become partially paralyzed and are no longer capable of preserving through vaso-motor influence the normal arterial tonicity of the hepatic vessels, that this paresis of the arterial coats necessarily diminishes blood pressure and correspondingly increases venous congestion with a diffusion of bile into the circulation, and a consequent condition of jaundice, that such a result may not immediately follow the exposure to heat, but does in many instances develop itself by gradual morphotic changes going on and manifested at some subsequent period.

AMPUTATION BELOW THE KNEE-JOINT IN PREFERENCE TO BRISMENT FORCE IN CERTAIN CASES OF DEFORMITY WITH ANCHYLOSIS ILLUSTRATED BY TWO CASES

BY LEWIS HALL SAYRE, M.D., ASSISTANT TO THE CHAIR OF ORTHOPÆDIC SURGERY AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE

[Read in the Section on Surgery and Anatomy June 1883.]

GENTLEMEN

In all chronic inflammations of the knee-joint, such as strumous synovitis, white swelling, fungus articuli, etc., there is a reflex muscular contraction, which, unless prevented or overcome by persistent extension and counter extension during the progress of the disease, will result in more or less serious deformity, generally a partial or incomplete subluxation backward with outward rotation, in which position it may be ankylosed by fibrous adhesions, false ankylosis, or by bony fusion, true ankylosis.

In all cases where the disease has entirely subsided, leaving this deformity, if it is possible to separate the patella from its adhesions with the femur, and if there is any movement whatever between the tibia and the femur, it is easier to resort to brisement force, even if it be necessary to make subcutaneous resection of the hamstring tendons in order that the leg may be brought into proper position. This operation, followed by the proper after treatment, frequently results in a useful limb, and not infrequently with a movable joint.

But in cases where the patella is absolutely immovable and the tibia and femur are united by long fusion, it becomes necessary to make a V section through the angle of deformity as suggested by the late Dr. Gordon Buck, of New York, straighten the limb and secure it in that position by ankylosis. In all cases where the limb is of sufficient length to make it useful for locomotion without too great shortening this is the preferable treatment as it results in a very useful member.

In those cases where the disease of the joint has occurred at a very early period of life, and has resulted in this deformity, the limb below the knee grows much less rapidly than the other. Patients are frequently brought to you in early adult life with the limb very much shorter than its fellow, and by the time they reach maturity the difference in the length of the limbs would make so serious a deformity that an artificial limb would be preferable to the natural one in its shortened condition. In all such cases, amputation below the knee-joint in the manner which I here intend to propose, and which is a modification of Prof. Stephen Smith's amputation at the knee-joint is preferable to resection of the bone, and attended with very much less danger to the patient.

The amputation should be performed by passing the knife from the tubercle of the tibia slightly downward and backward to the popliteal space, making a very slightly curved flap, then passing the knife from the same point on the tibia around the other side of the leg to the popliteal space with similar curve, meeting at that point.

These flaps are then dissected up from a half an inch to an inch on either side, according to size of the limb, a free incision is then made through the ligamentum patellæ at its insertion into the tubercle of the tibia and the remaining soft tissues down to the bone. Then separate the tibia just below its articular facets either by a strong cartilage knife, or if the bony fusion is complete it is preferable to use the saw, in this way the joint is not exposed, and if the Esmarch bandage be used the operation is comparatively bloodless.

The popliteal artery being now secured, the thigh is flexed at a right angle with the trunk, the wound is then stitched in the posterior part, making a linear incision entirely posterior to the end of the stump, a drainage tube having been inserted making its exit at the posterior portion of the wound at the upper part of the thigh.

If this operation be performed with antiseptic precautions, union, by first intention, can as a rule be secured, and no constitutional disturbance results, and when the wound is healed, the end of the stump, being free from cicatricial tissue, is never subject to irritation by pressure from an artificial limb.

The advantages of this operation are

1 Much less dangerous than resection of the bone, resulting in much more speedy cure

2 Resection always results in ankylosis, which prevents flexion of the limb in the sitting posture, which is a very serious inconvenience to the patient, while an artificial limb can be so applied as to be flexed when sitting, and is equally serviceable in locomotion

3 If the natural limb is so much shortened as to require elongation by an artificial foot, or a very high shoe, the support is very insecure in walking, while the deformity is much more conspicuous than an artificial limb

4 The advantage of this amputation over those ordinarily used is that the end of the stump is able to bear the weight of the patient without danger of irritation, the cicatrix being entirely behind the limb, and therefore not subjected to any pressure

Eva L. J., aged 16, father healthy, mother always delicate, as has been this child, seven other children all healthy. When patient was 18 months old an abscess formed at the top of the left knee, which opened at the lower part of the joint. No cause was known for this. The inflammation of the joint continued until she was between 5 and 6 years old, when the leg began to be flexed upon the thigh. One night the limb became flexed at nearly a right angle, in which position it has since remained. There was considerable tenderness of the joint, which was treated by liniments, frictions, etc. No extension was ever used. The patient at present is in fair health. Left limb flexed at nearly a right angle as seen in drawing, Fig 1, subluxated backward and everted, firmly ankylosed by fusion of the femur, tibia, and patella. The leg below the knee is more than 3 inches shorter than its fellow. For

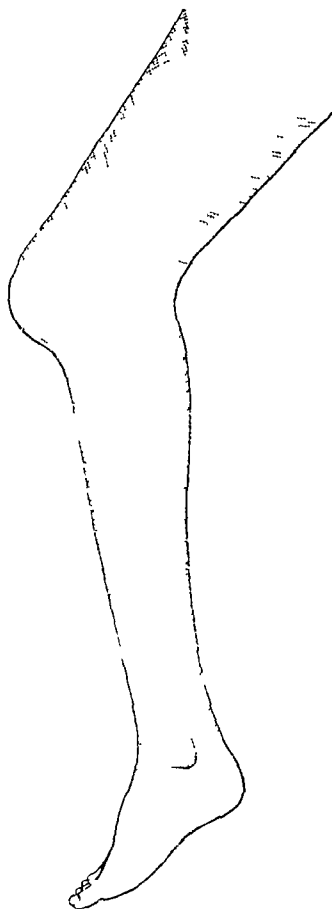


Fig 1

this reason amputation below the knee was decided upon, as a V section through the angle of deformity would result in so great a shortening as to render the limb useless for locomotion without an elongated shoe, and, being at the same time ankylosed, would not have the advantage of flexion, which an artificial limb would give.

The modification of Smith's amputation was therefore performed by Dr Lewis A. Sayre on April 7, 1883, with antiseptic precautions. There were no untoward symptoms, the ligatures coming away on the eleventh day, and the wound being completely closed on the seventeenth day after the operation, so that an artificial limb was applied six weeks from day of operation on which she walked without pain or discomfort. The accompanying photographs, taken one week after the application of the limb, show the condition of the stump and the position of the cicatrix entirely posterior to its end, as well as the ability to stand upon the limb, also that of flexion at the knee while sitting.



Fig 2

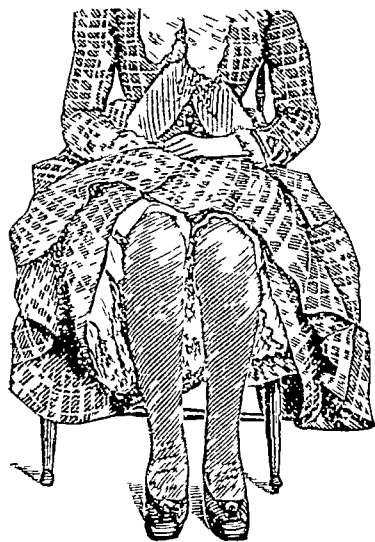


Fig 3

E G, aged 11, of healthy parents, and always perfectly healthy. When 4 years of age, mother noticed swelling of right knee. This was pronounced white-swelling by the physician, who treated it by blisters and fixation in a box-splint, no extension being used. The limb was retained in the splint for four months, when it was removed and the knee found to be ankylosed in the straight position. This ankylosis was fibrous in its character, as during the next four or five years the knee became more and more flexed, until it is now fixed at a right angle, with displacement of the tibia backward.

There is slight motion between the tibia and femur, but the patella is firmly fixed. An attempt at brisement forcé was made on April 25, 1883, but it was found impossible to release the patella from its fastenings to the femur, and the operation was therefore abandoned. No trouble followed the attempt at brisement force. The limb has been kept immovable after the operation, with pressure on the femoral artery, and cold applications to the joint, and on May 23, 1883, I amputated the limb below the knee joint in the manner described, separating the tibia at the cartilaginous junction.

A small abscess was discovered in the head of the tibia, just beneath the cartilage. This was thoroughly scraped, and the wound washed with carbolic water. A ligature was placed upon the popliteal artery, a drainage tube inserted, and the wound closed with five stitches and adhesive-plaster strips between them. The operation was performed antiseptically. No trouble has followed, the temperature and pulse having not risen above 100, and very slight pain having been experienced.

Forty-eight hours after the operation the limb was dressed under the spray. No pus found. The adhesive straps were left in situ, but the sutures carefully removed without disturbing the wound, which seemed to be united except at the point of exit of the drainage tube and ligature, when the limb was re-dressed as before.

PÆDIATRIC MEDICINE AND ITS RELATION TO GENERAL MEDICINE

BY J B CASEBEER, M D, AUBURN, IND

[Read in the Section on Diseases of Children June 1883.]

Many of our most successful practitioners of medicine amongst the *adult* population have made signal failures when called upon to exhibit their skill in the treatment of tender children.

We have often been pained by the remarks dropped from the lips of some physicians whom we were endeavoring to regard as sample practitioners, on account of the indifference manifested, and the slight degree of importance attached to their practice among the children, such as, "Well, you may give a few drops of 'paregoric,' or some 'catnip tea,' or most anything of that kind you may find convenient, as we cannot do much for children so young," or, "Your mothers or 'old women' can treat young children as well as I or any physician can," or, "I don't like to treat children, it is so unsatisfactory. They cannot tell how they feel and what is the matter with them, and I never can tell what they need."

To my mind, such remarks (and these are but a few imperfect specimens of those somewhat current in our ranks) indicate a lack of knowledge, or a misconception of the true principles of the practice of medicine as applied to the children, which certainly challenges our sincere attention.

It is a loud cry for *reform* or *re-education*. To my mind, the diseases of children speak as plain a language, and require as direct remedies to control them, and as emphatic in their demands as are those of the adult, and when we admit that untutored women or good nurses can judge of the requirements of sick children, and can treat them as well as the educated physician, then I feel that we ought to be honest enough to admit that the same is true in all classes of the sick. To my mind, paregoric, rhubarb, and chamomile are appropriate remedies, when indicated, alike to the child and the adult, and when not indicated would be as much out of place in the one as the other.

The natural language of the child is the true and unvarnished expression of facts, while that of the adult, truned by the prejudice of their own opinions, freighted with the imperfect use of an imperfect language to express their imperfect thoughts, must be taken with a great deal of allowance, and very much of it must be often entirely excluded when making up a diagnosis.

If the intelligent physician will but open his eyes and his ears, his little patient will unconsciously tell him how he feels and what is the deviation from the health standard. If he will but study cause and effect, he will find the indications for treatment just as plainly marked out as in his older patient, that may be very fluent in reciting his pains and ills. The physician practicing rational medicine, and who is governed in his treatment by the indications of each individual case, and strives to meet only the indications that do exist, needs to be very familiar with the natural language of disease, and of health, the true nature of

dies used, both physiological and toxic, and if he can read these correctly and apply them with judgment, it matters not whether he finds his patient in Maine, Georgia, Pennsylvania, Ohio, Indiana, or California, the same symptoms call for the same remedies, and in the different ages of the patients the same language is to be read, the same indications to be met in the same way, and thus the same skill and judgment is called for, and the man who is really a good physician, and applies the same good common sense in his practice, can do so in one State or age as well as another

While we believe the above is true, we believe also that the converse is only partially true, for we may, in our treatment of the vigorous adult, fail to skillfully meet the leading indications with their appropriate remedies, yet if we are not too excessive in the use of our misused remedies, our patient, with his strong vitality, may get well in spite of us, but in the tender age of our infantile patient a misplaced remedy might be fatal in its consequences

We are therefore forced to the conclusion that the diseased children ought to be placed in the care of the *best physicians*, and, if the uneducated women and nurses are to be given work because of their kindness of heart and their good nursing, or even for their experimental knowledge, certainly let it be given them in the realm of the adults, where a neglect or a misapplied remedy is far less harmful

Let no true physician flatter himself with the thought, much less say, I can do my whole duty to my adult patient, but I cannot successfully treat the children, for it is only the siren song of a false and overgrown conception of *self*

In our curriculum of studies and in our libraries we have works on the "Practice of Medicine," which means the practice among the adults, and then we have books on the diseases of children and their treatment, written usually by different authors, and they describe diseases so differently and have such different views and modes of treatment, that the student at once infers that it is an entirely different study, and as it requires a different chair in the college (unless connected with the chair of gynecology or obstetrics), he concludes certainly there is no similarity to general practice, and he enters it as a different study, views it from a different standpoint, and thus is prejudiced from the beginning, and is freighted with false impressions which complicates his labors, retards his progress, and he may feel that to be an *adept* in the one he must be a *failure in the other*

Let us reason together a few minutes and see if we as a profession are not somewhat at fault in our teaching, or rather in our failing to teach the true similarity of the diseases of all classes, and thus mystify what should be made plain especially to the uninitiated but anxious and earnest student

Take for example pneumonitis in the child and in the adult. The same cause, as sudden change of temperature, under similar conditions of perspiration from prostration or over-exercise, with the inhalation of cold air, may in the child as in the adult produce a congestion of the lungs, and may result in bronchitis or pneumonitis

In either case there is local hyperæmia, a chill, followed with febrile excitement, more or less intense, and if the sensitive pleura is involved there will be pain in proportion to the degree, and alike in both

The indications are certainly alike in both—viz, to control the pain, allay the fever, and overcome local congestion

We meet the first with our opiates, or, perhaps better, with aconite and bryonia, especially if the pain is made more severe by breathing or coughing or any movements, with a tendency to sweat, or if the pain is sharp or lancinating with hot dry skin, asclepias then will be a more appropriate remedy. To meet the second indication, if we have a full bounding pulse, our remedy is veratrum viride, but if it is small, quick, and thread-like we prefer aconite, or if the pulse is sharp, patient restless with sudden startings in sleep, and in the child you will get the shrill cry, and especially if there is elevated papillæ of the tongue, we then use the *rhus toxicodendrum*. If the secretion of the mucous membranes, and especially of the bronchial tubes, is not sufficient we use ipecac, and if too profuse and much rattling of mucous in the tubes, lobelia is added to the sedative, and experience declares that we can always correct these special symptoms with these special or direct remedies—always if we properly apply them

The third indication may be met by local applications, as counter-irritation, thus bringing some of the surplus blood to the surface, or by the application of sufficient heat to cause the contraction of the over-distended blood-vessels, and thus enabling them to unload by forwarding the over-supply of blood, assisted by some capillary contractor such as ergot, calabar bean, or better still, in my opinion, by the use of proper doses of belladonna. These remedies are alike appropriate at all ages (except opium, which is seldom admissible in the child, and, I think, of doubtful influence in the adult generally)

Observing the above rules in the early stages of the varied forms of pleuritis and pneumonitis, they can be successfully aborted in a majority of cases

Yes, I will say more. If it will abort one, it will abort another and another, if under similar circumstances, and if the same symptoms exist and are met by the same skillful application of the same remedies, and are applied in the proper strength and quantity, and at the proper time. This will hold true, no matter what is the patient's name, in what State he lives, or of what age. The real skill in the treatment of any patient is in the reading the exact language of disease by the existing indications, and thus to meet them with exactly the right remedy, given in just the right doses, and the latter often requires greater skill than either of the others. Here, then, good judgment is usually the ranking officer, and should take the command

Or take, if you please, any of the other numerous inflammations, or any of the diseases which attack all ages of the human family, and the symptoms will be manifestly the same, and as similar indications are met with similar remedies under similar circum-

stances, we are forcibly impressed with the similarity of treatment which is indicated in all ages

We do not inquire the age of our patient for the purpose of deciding what to give, so much as to decide how much to give

Indigestions in all ages must alike be met with the same skill in regulating the quantity and quality of appropriate food, with the aid of such digestors as will aid the truant stomach to do its whole duty

In surgery, dislocations are to be similarly diagnosed and reduced, fractures also must be similarly placed in apposition and held with their appropriate dressings

The infectious and contagious diseases are similarly manifested in the different ages of life, and I think no one would argue that the same rules of prevention and treatment should not prevail

Of course, we must bear in mind that the nerve centers are more easily influenced, as they are less mature, in the child than in the adult, either for good or evil, by disease or medicines, but this will not so much guide us in selecting our remedy, as it will in the manner and power of its application

I believe, when we entirely rid ourselves, as a profession, from that old and justly condemned habit of treating diseases instead of the patient, and let the pathological symptoms alone suggest the remedy used, then will we have come to the proper mark, and thus have lopped off a large section of worse than useless treatment, for in the tender age of childhood we cannot afford to use any unnecessary medicines, lest they prove detrimental to the best interest of our patient

One step in the right direction is not sufficient when more is required (as it certainly is in pædiatric medicine), for when we succeed in throwing overboard all unnecessary and uncalled for medication, then it is of the utmost importance that what remains to be administered should receive our careful attention, and should not only be in the purest possible condition, but be made as pleasant and acceptable to our patient as is possible

I am free to admit that I have taxed my skill quite severely and for a long time endeavoring to make medicines pleasant. I have theretore studied to season skilfully, as the good cook would do, by using syrups—peppermint, cinnamon, wintergreen, licorice, ginger-brandy, whiskey, wine, etc etc, but could succeed better in pleasing the smell than the taste, and could take solid comfort in the old saying that I would hear repeated to my patient for his especial cheer and comfort, viz "If the medicine don't taste bad and make you sick, it will do you no good"

I assure you I was greatly encouraged when I had the opportunity to make a reputation by furnishing nauseating and disgusting medicines to the sick, for I had then learned that a little medicine mixed with syrup, and flavored with one of the essential oils, would answer the purpose admirably, and in that I felt quite proficient. All went well until the homœopaths began to invade my territory, and soon my old patrons would say to me, "Doctor, I was sorry I could not have called you when my children were sick

but they had heard that Dr — gave such pleasant medicine, and would hear to nothing else than to have him called, yes, and they took his medicine so nicely, and got along very well"

It was not very long until I, with my fellow-practitioners who had "subdued the forest" and tamed the wilderness, learned that the grown-up children, and even the old folks, began to relish a better medicine, and would prefer to take a pleasant potion every 20 or 30 minutes, rather than a dose of old genuine medicine, not pleasant to the taste, every two or three, or even four hours. But I cannot stop here to give you in detail the anxious hours, the earnest study, and the full reasons for the steps taken and the success attained, in finding a way to prepare medicines that was not disgusting, but rather agreeable to the tastes and stomachs of our patients

Suffice it to say that with us the battle is over, "medicine" is triumphant, and the homœopaths have departed for healthier climes, where physicians continue to disregard the stomachs of their patients, and continue to give disgusting potions. We now ask our druggist for pure, fresh medicines, free from the worthless gums and dirty sediments (and we get them), and then we can dispense them in pure water, God's only beverage to the thirsty, so that a spoonful will contain the desired dose of medicine, and this is rather grateful than otherwise to our patients, whether they be large or small. If we desire a condiment, we can use the distilled glycerine, and possibly, when it will do no harm and is desirable for the taste, a little of the purest white sugar can be used, or some desirable mint water may sometimes be preferred, and thus medical men can sustain amicable relations with the community, and even with the children. Their little stomachs are not so bloated with fermenting syrups, and the consequent colics are not so exciting our nurses into a constant demand for worm medicines, castor-oil and turpentine, etc, but our little patients can have their rest, and even the physician is permitted to enjoy his repose until morning

And now, in conclusion, let me ask my fellow-laborers in our beloved profession, in the interest of our own honor and usefulness, in the interest of the dear children we are called to administer unto, and in the interest of the anxious and earnest students seeking to know the geography of the whole field of medicine—I say in the interest of all these, let us endeavor to appreciate and teach the true relation existing between the child and the adult, the sprout and the full grown tree, and forever divorce this branch of our practice from the unnatural relation heretofore forcibly maintained between it and gynecology and obstetrics. And let us wake up to the realization of the fact that there is more real science in the proper practice of medicine among the children, where we read the nature, expression and influence of disease by the physical signs and rational symptoms, unaided by the verbal language of our patient, and also, that the treatment of children calls for the best efforts of the most scientific and skillful of our ranks, and that any indifference to or neglect of the responsibility of their treatment is of our

weakness in this direction, and our non appreciation of and unwillingness to perform our whole duty

DISCUSSION

Dr Sennott, of Ohio, said he was interested in the treatment of diseases of children, on account of the action of medicines being untrammelled by mental predispositions

Dr Ulrich said children were shamefully abused by over-feeding and under-clothing, and ignorance regarding temperature, etc. He would hail with joy a revolution in the dress of the newly born, make the new dress of woolen material, loose, easily applied, etc., would banish overlong skirts, pins, and belly bands. The dress now used for infants in this country was a torture, and the sooner a common-sense dress was adopted the better for future generations

Dr Boothby, of Wisconsin, agreed with Dr Ulrich in the matter of dress, but would go further back in urging a revolution, back to the first bath, before any dress was used except a blanket. He would not allow a child to be bathed till from six to twelve hours had elapsed from its birth, would have the child thoroughly oiled, wrapped in soft, warm flannel, and laid by the side of the mother, and would not have mother or child disturbed for from a quarter to a half day, had seen fatal results from carelessness in bathing a weak babe in a cool room, and wrapping in cotton cloth, was particular to see that the babe was wrapped in flannel previously *warmed und dried*, and if because of circumstances it cannot be laid with the mother, keep near a warm stove

Dr Casebeer said, in closing the discussion, that what the profession needed in the medication of children, was pure and reliable medicine, given in water when possible, well diluted, small doses often repeated being generally preferable, and where this was followed by good judgment in other minutiae, the regular physician would be preferred and employed many times where now the Homœopath is called

UNITY OF DIPHTHERITIC AND MEMBRANOUS CROUP.

BY ALEX. HARRIS, M.D., VIRGINIA

[Read before the Section on Diseases of Children June 1883]

Because of the diverse views held by the profession at large, and especially the members of the district society which I have the honor to represent in part in this Association, I feel great interest in the discussion of the question, are Diphtheritic and Membranous Croup—the “Cynuche Trachialis of Cullen,” the “True Croup” of other nosologists—convertible terms, modified only by difference in local expression, or are they distinct diseases, requiring opposite modes of treatment?

In the hope, then, of eliciting a discussion of this subject, which may at least secure a uniform therapy, I will assume the affirmative. Ours does not claim to be an exact, but a progressive science. At one time venesection was regarded the “sheet anchor” in the treatment of Asiatic cholera. Some of us have cured pneumonia—the cases amenable to the *vis med-*

icina of that day—by “blood-letting to deliquium animi,” tartar in one-half grain doses, pyalism, and the absolute diet, and, if I mistake not, the estimated mortality under that treatment was one in three. Think of the host of victims to apoplexy which large bleedings and active catharsis did not cure! Some of us remember the frequent blood-lettings, the close room and light diet treatment of phthisis pulmonalis, and the “galloping consumption” of that day. I need but mention them, the vastly reduced mortality in all these diseases secured by an opposite therapy, to illustrate the advance made in therapeutics. May it not be claimed that the facilities for, and certainty of, diagnosis have advanced *pari passu*? How many of us remember when cough, quick pulse, with emaciation were the diagnostics of phthisis pulmonalis, the “stitch in the side,” pleurisy, brick dust expectoration, pneumonia, etc. Late we depended upon general symptoms and physical signs to diagnose membranous laryngitis. Now we have the laryngoscope and microscope

With this introduction I proceed to the consideration of the history of Membranous or Diphtheritic Croup

Diphtheritic croup dates back certainly to the time of Aretæus, if not, to that of Hippocrates

The former of these writers, after describing pharyngeal diphtheria (as quoted by Dr McKenzie), says “If it extends rapidly to the chest through the windpipe, the patient dies the same day of suffocation.” Galen refers to the expectoration of a “membranous tunic from the pharynx.” But according to Dr McKenzie, Baillou, who lived in the latter half of the sixteenth century, gives the first definite description of false membrane. Tilla Real, a Spanish physician, describes an epidemic which prevailed in 1611, in which you have “a white matter in the fauces, gullet and throat, of such a nature that if you stretch it with your hands it appears elastic, and has properties like those of wet leather.”

Dr House, of Edinburgh, in 1765 described, under the name of *croup*, “an acute affection of the larynx and trachea, attended by the formation of a *membrane in the pharynx*, and often causing death by suffocation.” Most of us, I presume, recognize diphtheria in this assemblage of symptoms

In 1802 Dr Cullen, of the same city, gave a description of *cynanchi trachealis*, in which we cannot fail to recognize the diphtheria of to-day, and Dr Caldwell remarks, in a foot note, “that *croup* sometimes prevails epidemically, as appears to have been the case in the neighborhood of Alexandria, Va., in 1799, when Gen Washington fell a victim to it.”

Pathologically, I think it may be assumed that *false membrane* is as constant a result of diphtheritic inflammation or poisoning, as the eruption in scarlatina, or pustule in small-pox is an effect of the poison upon which those diseases depend, and if this membrane is found in the *pharynx*, I think I am safe in saying that we all consider it equally conclusive as a diagnostic. It appears, then, only necessary to establish the identity of *laryngeal* with *pharyngeal* false membrane, to make the former as conclusive a diagnostic as the latter

I presume no one will undertake to differentiate *laryngeal* from *pharyngeal* false membrane by the "naked eye" appearances. Virchow at one time based a distinction upon the claim that diphtheritic membrane could not be detached without tearing the underlying surface, while the croupous could be removed without injury. He, however, surrendered this distinction after closer observation.

Dr McKenzie holds that it has been fully demonstrated that the difference in *degree* of adhesion of pharyngeal and laryngeal false membrane, is due to the difference in the structure of the parts upon which they exude.

So far as I am informed, microscopists have failed to differentiate. Dr Wagner declares that his preparations of *croupous* and diphtheritic membrane "are very much alike." Rindfleisch admits that "the pathological processes are the same."

We now come to consider the supposed clinical difference and post mortem revelations.

Dr Watson (see lectures as to membranous croup) says "It is not contagious, but is sometimes found attacking more than one member of the same family at the same time, or in quick succession. The children of washerwomen are more particularly obnoxious to it, and the attack is sometimes *preceded by sore throat*" (an incident has recently occurred under my own observation, in which diphtheria was conveyed in the clothes to be washed to the family of the laundress).

Dr Colsy, in his account of *membranous croup*, says "It appears to be epidemic when the wind is from the east", and in his descriptions of post mortem revelations says "The mucous membrane of the *pharynx* is sometimes *covered* with false membrane, at the same time that we find it in the *larynx*."

Dr Wood (see Practice, Vol I, p 813, article *Pseudo-Membranous Croup*) says, in his account of symptoms "This disease may always be suspected when the voice cannot be raised above a whisper, with wheezing inspirations, and especially when examination reveals *patches* upon the fauces, or a *continuous coating of fibrinous exudation on the soft palate, half arches, or pharynx*."

Troupin, in his lecture, "Diphtheria," says "Diphtheria shows a marked preference for the pharynx, the air passages, and of them, particularly the larynx, constituting the affections commonly known as membranous sore throat, or malignant sore throat, formerly designated gangrenous sore throat, and suffocative sore throat, now more particularly called *croup*, in which the larynx is the chief seat of the disease. Of all its forms, pharyngeal is by far the most common."

Then follows the history of a case of croup occurring in the Hotel Dieu, under the following circumstances. Six days after the admission of a mother and her child into a ward, where there was a woman with membranous sore throat and a child with croup, the mother was found to have the right tonsil and uvula coated with false membrane and the cervical glands enlarged. Her child was attacked three days later. A whitish concretion was observed on a slightly abraded surface at one of the commissures of

the lips, the tonsils, as well as pillars and arch of the palate, presented nothing abnormal, *not even redness*. On the third day symptoms of croup presented themselves, by the fifth this child was dead from suffocation. The autopsy revealed an absence of any deposit upon the tonsils or palate, but the larynx and trachea were invaded by false membrane, which extended even to the most distant bronchial ramifications.

It is claimed by dualists that diphtheria has its local expression in the pharynx, occasionally spreading to the larynx, while croup is especially a disease of the larynx and trachea.

I have good authority for the statement that membranous croup originates in the larynx or trachea in about ten or twelve per cent of cases, but if it had its origin in one of these localities in *every* case, unity could still be successfully maintained. In a constitutional disease *local expression* cannot make a specific difference.

Rheumatism, whether expressed in muscle or joint, is rheumatism still. Cancer is no less cancer with its local expression in the larynx, than if the pharynx be the site selected. It is true, if this site be selected the cervical glands sympathize at once, because of the intimate anatomical relations of the parts, and this fact obtains also in pharyngeal diphtheria, and admits of the same explanation.

But dualists urge that croup is a sthenic and diphtheria, an asthenic disease. In reply while few of the profession now resort to the lancet in membranous croup, but on the contrary distinguished dualist authorities recommend the supporting plan in which alcohol is specially included, Dr Simons, of Paris, reports fifty-three cases of diphtheria treated by venesection in 1878, without the loss of a case. All clinical experience attests a wide range in *type* of all the Zymoses, from collapse to the highest excitement. I believe laryngeal is generally more sthenic than pharyngeal diphtheria, which fact has been ascribed to different anatomical relations of the local expression, but few authorities now regard membranous croup a sthenic disease.

To sum up, unity is established by the history. The old writers evidently describe diphtheria under the varied nomenclature of "croups, membranous croups, cynanche trachialis," etc. By the etiology, none of us suppose that the children of London washerwomen were so prone to *croup* because of the dampness produced in their houses by washing, as Watson thought, but the contagion was brought in the clothing to be washed.

Pathologically, microscopically, and clinically, the membranous exudation has been shown to be the same, modified only by difference in site.

Clinically, for myself I will say, that if you will show me through the intervention of the laryngoscope false membranes in the larynx (eliminating Herpes and perhaps Minguett) or the expectorated membrane separated from the mucous by water, I will not hesitate to say that you have a case of blood-poisoning, now known as diphtheria, although there were no deposits in the pharynx. I have recently treated and lost a case.

DISCUSSION ON DIPHTHERIA AND MEMBRANOUS CROUP.--ITS UNITY OR DUALITY.

BY E. L. BOOTHBY, M. D., HAMMOND, ST. CROIX CO., WIS.

The alleged or so-called differences between what is known as membranous croup and diphtheritis are—1st, pathological, 2d, clinical ones. There was great importance attached to the pathological structure of the false membranes found in the pharynx and larynx in the peculiar inflammations known as diphtheria and membranous croup.

Virchow was the originator of these so-called pathological differences, better called theoretical distinctions. He admitted a similarity in structure, but claimed that the exudation was poured into the structure into the substance of the mucous membrane in pharyngeal diphtheria, while in membranous croup the exudation was but a coagulation upon the surface.

A most important point was thought here to be made in practical diagnosis,—removing the membranes, etc., etc. No homogenous basement membrane in the pharynx, and is in the larynx. He surrendered this ground finally, for he found that these exudations passed into each other by insensible gradations, and then brought up another theory that necrosis of the subjacent tissue was the great pathological symptom, and distinguishing feature of diphtheritis.

This was no better than the other, for many cases he found to be croup clinically, but necrosis (*death*) of the soft tissues supervened, and *vice versa*.

No naked eye or microscopical differences in the two membranes.

Wagner says the diphtheritic deposit is a transparent, homogenous tustrous net-work filled with pus corpuscles croupous.

Deposit is a close net-work of delicate threads whose meshes contain elements resembling *puss cells*. Rindfleisch believes in a pathological identity of the two membranes. Hence, we must perforce abandon our first difference, viz the pathological.

Next let us consider what has been termed the clinical differences. They are as follows: 1st, the difference in location; 2d, the difference in manifestation.

In regard to the first named, that of site or location, it is claimed that diphtheria is a disease of the pharynx, tho' it may sometimes spread downward into the larynx. While croup, the dualists claim, is essentially an affection of the larynx, and never follows upward or appears in the pharynx. It would not be croup then, for that term croup or croups was just given to an acute affection of the passages in 1713, by Dr. Polk Blair, of Scotland, while the disease now known and described as diphtheria of the pharynx was not known to the profession of Great Britain till 1858 as diphtheria.

That croup does often begin in the pharynx and passes downward into the larynx, exhibiting oftentimes none of the peculiar symptoms of diphtheria, that is, no constitutional disturbances, such as is caused by sepsis, is a fact to which I can testify from many a bed-side experience. In fact, I am ready to assert, and to prove, from careful clinical investigation, that

more than 75 per cent of those cases which the adherents of the duality theory claim to be membranous croup and distinct from diphtheria, the primary local disturbance begins in the pharynx and passes downward into the larynx, and was discovered and pronounced membranous croup.

However, it is not only a matter of logic, but a matter of fact, that differences of location can not from any process of reasoning, from any logical reasoning, be considered in a constitutional disease a specific difference—(*cancer of larynx*).

The first of the clinical differences then is disposed of, then, that of site or location.

Secondly, let us look for a moment at the manifestations of the two (*so called*) diseases.

1 They claim for croup that it is local (*purely and simply*).

2 That there is no inflamed lymphatics, and consequently no sepsis from secondary absorption into the system of the poison locally generated.

3 That croup is a sthenic(?) disease.

4 No albumen appears in urine.

5 Paralysis never supervenes.

While, per contra, it is claimed by the same class of men that just the opposite is true of diphtheria, viz

1 That it is a constitutional disease.

2 It is of a dynamic type.

3 That the cervical lymphatics ARE swollen and inflamed.

4 That albuminaria often appears (and when it does so your patient generally dies).

And 5, and last Paralysis is a common sequel. All of which, regarding pharyngeal diphtheria, we do not attempt to deny, only merely claiming the same conditions supervene in what the dualists call membranous croup.

Let us quietly and briefly examine these claims, and see whether these assertions are facts or fictions.

1st The constitutional or local nature.

The primary septic condition gives rise to, first, the local conditions, and secondly (according to where these local conditions appear), and subsequently, generate poison to constitutional disturbances.

Though in malignant cases the primary symptoms are constitutional, for the primary septic cause was a powerful one, and may give rise to constitutional disturbances as well when first manifesting itself in the one place as in the other, remember the free network of absorbents of the mucous membrane of the nasal passages, the soft palate, and back of the pharynx, with their wonderful connection with the very numerous cervical glands beneath the angle of the jaw, and do not wonder that poison is carried through them into the system, deteriorating the blood, and causing great hyperæmia and swelling, and contrast this with the paucity of lymphatics in the larynx and trachea, which are connected with but the one solitary lymphatic gland, and one small one on the side of the trachea.

And do you not readily see why you do not get constitutional disturbances when the disease is located in the larynx or trachea?

There is *not* the liability, there can *not* be the danger, there is *not* the constitutional disturbances, when the disease has first seized upon the larynx or trachea.

2 We are told croup is sthenic(?), diphtheria, adynamic—opposite conditions.

Yet diphtheria is often treated with calomel and bleeding, and many advocate a stimulating treatment for croup.

Therefore, we must draw this fact—that distinctions based on a difference of type only in two diseases are without weight.

3 The inflamed and swollen glands I have already spoken of.

4 The alleged clinical difference was albumenaria. Did any of you ever test the urine in what you called membranous croup?

Then test it for albumen in the same number of cases in what you call two diseases, say 100 of each, and you will find it as often complicating the one as the other, and your patients will die in both cases, as a general thing.

5, last Paralysis—common in diphtheria, rare in croup, I admit. Yet not a year ago I read of a case diagnosed membranous croup where the little patient, struggling in the greatest agony for a breath of God's life giving oxygen, raised herself from the pillow, only to fall back the next moment a complete paraplegia, in which condition she remained till death ended her sufferings, some forty-eight hours subsequently.

Ordinarily, our patients are asphyxiated ere they have time for paralysis to appear, as *that* is generally a *sequel*.

There, gentlemen, are all the conditions which have ever been claimed, so far as I know, in the differential diagnosis of what you denominate membranous croup and diphtheritis.

We must look upon this question, however, from a broad, a philosophical, a progressive standpoint.

In order that we may place our accumulated knowledge where we can use it to the greatest advantage, we must classify. At first, classifications were all symptomatic. Next, after anatomy became mastered, classifications were all anatomical.

But neither of these will answer for the present day. An ætiological classification is what we seek. Trace disease to its origin, unearth its hidden causes, for the cause of disease is the very essence of its specific nature.

INFANTILE PARALYSIS

BY DR. NORMAN TEAL, KENDALLVILLE, IND.

[Read in the Section on Diseases of Children.]

The subject of infantile paralysis is chosen in this instance for two main reasons. First, for what is not known of it, and second, for what ought to be, and possibly in time may be, learned of a malady of so frequent occurrence and so dire in consequences.

The gospel preacher does best when discoursing from a substantial text, and so it is, I fancy, in regard to other speculative as well as practical subjects.

Accordingly, for the better discussion of the subject

in question, I will introduce a case in point, which will be recognized as a fair type of essential paralysis. A seventeen-month-old female child of previous good health and of good development was recently brought to me by the mother and the attending physician, presenting the following special symptoms.

Complete *paraplegia*, considerable *dyspnoea*, slight *paresis*, involving the muscles of the *neck*, *dorsum* and *arms*, with the attendant inability to hold up its head—that is, to hold the head erect without special effort, etc., and with a very slight restlessness apparent in the face and eyes. The history, as related by the mother, was that the child had passed a quiet and comfortable night in bed with its parents, that it had played in bed in the morning, as was usual with the lively little charge, that the child, after its morning romp in bed, had been allowed to climb out upon the floor, intending, or at least so interpreted by the mother, to run to the father, who had previously arisen, when suddenly the alarming fact that this usual morning feat of running about the house in robe scant and free could not be performed. The child could neither run, walk nor stand, it was thenceforth a helpless little bundle.

As before remarked, this is a typical case of infantile paralysis, and cases similar to this occur continually, and many have happened in the past. The malady has left its indelible stamp of distortion and disability upon its thousands of victims in the past, and is daily recruiting its army of cripples, in spite of boasted achievements in medical and surgical science. Though, the fact is, the profession is not boastful in regard to essential paralysis. On the contrary, there are too many of its members who shun the victims of this disease, because they feel so little can be done in the way of curing.

In regard to the treatment of the case I present, I have to say, pot bromid, ergot ex fl, and bel ex fl, were prescribed, followed by abatement of several prominent symptoms, notably the *dyspnoea* and the *paresis* of the neck and arms, but, as may be inferred, without any apparent change in the *paraplegic* condition. In addition to the internal medicines given in the case, external manipulation, such as rubbing with the hands, slapping the surface of the thighs and nates, galvanism, and often repeated moving of the feet and lower extremities, with particular attention to flexion and extension of the principal joints, and also of the feet and toes, was not only made by myself, but strongly advised, and, I have no doubt, was practiced by the attendants of the patient. Attention to diet and general bodily exercise was also included in the management of the case. This is the case, so far as history, treatment, and the partial results already mentioned are concerned. The present status, after the lapse of about four months, will follow, with your further attention. The patient has regained the power to move the toes, can sit erect and easily hold up the head, has no *dyspnoea*, can flex the legs and thighs, but has only feeble power of extension, cannot stand, or at best can only do so with aid, and has learned to creep about, dragging the enfeebled lower part of the body along. I may be per-

mitted to remark, at this juncture, that I regard this crawling or creeping operation as somewhat against the patient, for the reason that the bodily exercise thus made or taken is at the expense of the lower enfeebled parts, in the respect that such locomotion, while it satisfies the immediate desires of the patient for change of position, it does not in the least give the much-needed exercise to the affected parts, and, on the contrary, it induces a habit of allowing such parts to remain in a state of idleness, which, above all things, is hurtful to chronic cases of this class

So far no reference has been made to the pathology of essential paralysis, and upon this rock in this case—as in all others of the class we founder, or, if we choose, may float out into the sea of speculation—a feat I, for one, do not now elect to perform

In conclusion, gentlemen, I beg to suggest that in the present light we are especially called upon to guard our little unfortunates against the deformities almost sure to follow siezing of this disease

While we do not know the true nature of infantile paralysis, we do know only too well that atrophy contractions, with adhesions, etc., are common results, and it is against these we must guard as best we can. The proper measures to fulfill this, or these indications, will suggest themselves to the attentive practitioner. Do not infer that I mean to say that even the best of our efforts will always succeed entirely in preventing deformities. I do say, however, that much may be done in this direction by well directed manipulation and appliances, to the exclusion of nostrums and all dyspepsia breeding. In short, gentlemen, the patient should be treated mechanically according to the indications in each particular case, flanked only by such internal medicines as may be required for the correction of unhealthy constitutional conditions

With the best possible treatment our patients will generally remain paralyzed, at least for a long time, but I hold that if we keep up the nutrition of the affected parts, by any means whatever, and mechanically and otherwise guard against deformities, we assure to them—in fact, gun for them—about the only chance of final recovery. On the contrary, if we allow deformities to take place, our patient can scarcely recover, even if the paralysis should fortunately pass off

Is there any question in the minds of my hearers as to the authoritative language of allowing or permitting deformities to occur? If so, I answer that the surgeon who would allow ankylosis of the wrist to follow a Colle's fracture—without having advised, yea, even enforced, early passive motion—would be guilty of malpractice, and would be equally guilty if he permitted his young paraplegic's lower extremities to become distorted without having made strenuous efforts to prevent such calamitous condition. These efforts should be massage, opposing abnormal contractions and tendencies thereto by hand and proper mechanical appliances, bathing, moderate friction of the limp extremities and the spine, standing the patient erect upon the supported limbs, and all means possible and probable that may send life-giving blood into the half-dead tissues, and such means as will

certainly compel the enfeebled parts to action, for it is well known that non-use not only fosters but even begets inability

Much more might be said in regard to the management of cases of infantile paralysis, but as this paper was and is intended only to be suggestive, and does not in the least particular aim to be conclusive, I will leave the subject, trusting that a little lesson has been set, from which practical results may evolve

DISCUSSION

Dr Wm Lee, of Baltimore, said that Dr Teal's paper was confined to what he called paralysis, coming on suddenly without warning. He believed these cases, as a rule, had an exciting cause—such as rheumatism or neuralgia, and this from the fact that the patients usually got well in a short time under proper treatment for these exciting causes. Some times the disease simulates morbus coxarius, but this was easily excluded for want of other important symptoms. He believed the treatment of infantile paralysis often very unsuccessful, and, if successful, very tedious, even under the management of our ablest men

JEQUIRITY IN GRANULAR LIDS

BY EUGENE SMITH, M D, PROFESSOR OF OPHTHALMOLOGY AND OTOTOLOGY IN DETROIT MEDICAL COLLEGE

During the past year the attention of oculists has been called to the treatment of this intractable disease by an infusion of jequirity seeds, and the profession is indebted to Dr DeWecker, of Paris, for first bringing it forward in such manner as to make its use promising. Conflicting statements, however, have prevented many from using it, and no doubt the very severe effect of its application in many cases has prevented those testing it from giving it a fair trial

During my vacation this summer I visited Dr DeWecker's clinique, and there saw many cases in various stages of treatment, his method of applying it and the results, and I was somewhat astonished at each phase of it

As trachoma is the *bete noire* of our practice in Michigan, I am deeply interested in its effects, and I feel personally under many obligations to Dr DeWecker. I believe the profession will also for bring ing to our notice jequirity

DeWecker gave me some of the seeds he was using, and instructed me in the manner of using them. Since my return I have used the treatment in twelve eyes, being able to bear him out in most of his statements, so far as such a limited number of cases will permit. Besides the seeds he gave me I have used seeds procured from Parke, Davis & Co., chemists, which produced the same effect

In an article on this subject, DeWecker says in the *Annales d'Oculistique* for May and June, 1883

1st "Incontestably, lotions with the infusion of the seeds of jequirity cause a purulent ophthalmia of croupal character, the intensity of which can be regulated by the number of applications made and the strength of the solution used"

2d "Incontestably, the cornea runs no risk during the course of jequiritic ophthalmia"

3d "Incontestably, jequiritic ophthalmia cures granulation rapidly"

In support of DeWecker's conclusions, I can say that in *each* of the cases in which I have used it, I have found the jequiritic ophthalmia assert itself after the *first* application of a 3 per cent solution of either a warm or cold infusion¹. The degree of its activity varied in different cases, but it was active in all. Some individuals seemed more susceptible to its effects than others. In *each* case there was the phlegmonous-like swelling of the lids, with headache and fever, and in several of the cases *nausea* and *vomiting*. The croupal membrane formed on the conjunctiva, and there was a *sero purulent* discharge instead of one distinctively purulent. The immediate effect of each application lasted several hours, and the applications were made *three times* a day for *three days*, nine applications in all. The effects were then allowed to subside, simply keeping the eyes clean by bathing the lids several times a day in cold water or borated water.

So much for his first proposition. The second proposition—"the cornea does not run any risk from its proper use"—would seem to be supported by the following facts.

On my return home, August 17th, I found in St Mary's Hospital a Mr C, aged 73, who had been for about 10 days under the care of my assistant for a large asthenic ulcer of the left cornea. About four-fifths of the cornea was affected and nearly necrosed, and in spite of the usual methods of treating such cases, it was proceeding to the bad very rapidly, in fact, I considered the eye lost. I was about to test jequirity in a case of trachoma which I had treated at various times for a year or more, when I thought the case of corneal ulcer was a good one to test the fact of its *danger to the cornea*. I made an application to the conjunctival sac and laid a sponge wet with the solution on the lids at noon, and ordered an application that evening and next morning. When I saw him at noon next day—just 24 hours after *first* dose—there was high fever, nausea, intense shining oedema of the lids, particularly the upper lid, chemosis, and considerable pain when the lids were touched. I stopped the use of the jequirity, and let the patient wash the lids with a solution of boracic acid (about 2 grains to the ounce), and let the jequiritic inflammation pass off. The progressive tendency of the ulcer seemed checked, and improvement continued. He was discharged September 4th about well. In another case I used it three times a day for three days in a case of ulcerated trachomatous pannus, with a *small prolapse of the vis*, and the ulcer disappeared with the pannus inside of 10 days from the time of the use of jequirity.

That corneal trouble may arise, however, and that care must be taken in its use, the following fact shows. A Mr P, whom I have treated several times during the past year for trachoma, and who has been treated by others for the past three or four

¹ This is the strength commonly used by DeWecker at present though he sometimes uses a 5 per cent solution closely watching its effects.

years, was placed under the jequirity treatment, a 3 per cent solution being used. The lower half of the cornea had seemingly never been affected by the trachoma, the upper half had a thin pannus. As the jequiritic inflammation passed off, the lower half of cornea of right eye was seen to be extremely hazed, almost bordering on an abscess of the corner in appearance, and looked as if desquamation might take place. It did not, however, and the cornea slowly cleared up. The left eye took the same peculiar course, only perhaps in a severer form, the keratitis being well marked, and was followed by a small but rather deep ulcer, which, without special treatment, has slowly got well, leaving a thin leucoma.

With regard to the third proposition, "It cures granulations rapidly" I have been astonished at the marked effects I have seen in three weeks as a result of three days' treatment. I have never seen equal results from three months' treatment of similar cases by any of the usual methods. I think, however, the best results will follow its use in those cases of diffuse thickening of the entire palpebral conjunctiva, without the isolated trachomatous bodies, those which seem to be a general lymph-like infiltration with trachomatous bodies in the ocular conjunctiva and possibly in the cornea. In my experience, thus far, these are the cases most benefited.

As to its application, I saw DeWecker use a small sponge, with which he made an application to the everted lids, and had the sponge, wet with the infusion, applied to the lids, externally, for five or ten minutes. These applications were made three times a day for three days (nine applications in all). After trying this method I substituted absorbent cotton for the sponge, and I think its use much pleasanter. I find, in order to get the desired effect, it is well (if the swelling of the lid does not prevent) to evert the lids at least the first three or four times of its application and with a bit of dry absorbent cotton wipe off gently the diphtheritic exudation before applying the lotion. Care must be taken that the sero-purulent discharge does not get into the unaffected eye, as it will set up a similar inflammation and greatly increase the patient's discomfort. Owing to the severity of its constitutional effect when applied to one eye, it is advisable to treat but one eye at a time. After the severe symptoms pass off, which will be in four or five days, the other eye may be treated. The tendency to posterior symblepharon should be combatted by separating the agglutination with a probe.

MEDICAL PROGRESS

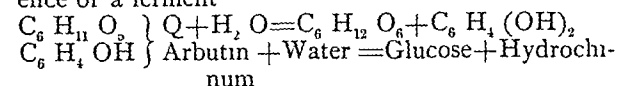
NEW INVENTIONS

NUSSBAUM'S BRACELET FOR WHIFFER'S CRAMP.—This is, in fact a penholder, which Nussbaum calls a bracelet, to be guided by the extensors and abductors, instead of by the flexors and adductors. It consists of a band of vulcanite of oval shape, about an eighth of an inch thick, and one inch and a quarter broad, with an oval diameter of about three inches and a quarter, and a short one of an inch and a quar-

ter All the five fingers of the hand can be slipped into it. In using it, however, the thumb only just enters, the little finger is left free outside, and the first, second and third fingers are passed in fully. The instrument can only be held firmly by expanding the fingers through, bringing into play the abductors of the thumb and the extensors of the first and fourth fingers. The pen is screwed to the bracelet so as to be in contact with the paper when the hand lies on a table. Professor Von Nussbaum has tried the treatment of the instrument in a large number of well marked cases of the disease, and states that all the patients wrote easily and well with it, and all of them said they felt comfortable and confident in employing it, writing without any fear of spasm being excited.—*Med Times and Gazette, July 21*

NEW REMEDIES.

ARBUTIN—Prepared from the familiar bearberry leaves, the *uvæ* *usifolia* of the pharmacopœias Meuche proved its diuretic effect in a case of mitral disease of the heart. It seemed to have a similar action in a case of chronic tubercular peritonitis. Catarrh of the urinary organs is the special province for the employment of arbutin. The urine of patients taking arbutin when first passed is of a normal color, but becomes of a dark-green color by standing, like the urine in carbolic acid poisoning. Bodlander has proved that hydrochinon is present in such urine. Arbutin is a glucosate, and occurs in fine acicular crystals of white color, soluble in water, which solution is of neutral reaction, of faint bitter taste, and odorless. The following formula illustrates the chemical composition of the substance, and also the reaction which takes place under the influence of a ferment



Hydrochinon will thus be seen to differ from phenal merely by the replacement of a second atom of hydrogen of the organic radical C_6H_6 by an atom of monovalent hydroxyl. The remedy may be administered in large doses without the production of any unpleasant effects. Brieger has employed a solution of hydrochinon as an injection in the treatment of gonorrhœa, but the healing influence of the drug would seem to be quite as effectually exhibited by giving arbutin by the mouth. It is recommended to give forty-five to sixty grains of the powder in the course of twenty-four hours in cases of urethritis.—*Lancet*

KORONIKO, from the *veronica pariflora*, is largely used in New Zealand as a remedy in dysentery and diarrhœa. Dr Jardine has also found it of much value in the chronic dysentery of China. After the administration of fifteen doses of the tincture of koroniko the number of the sanguineous and slimy stools was reduced to one-half, other fifteen doses reduced them to three or four daily, and a third like quantity effected a complete cure.—*Lancet*

THE WATER CRESS—Dr Grelletz, of Vichy, brought before the Therapeutical Society (Bulletin,

June 30) the question whether this popular article of diet possesses any of the depurative qualities popularly attributed to it. He is of opinion that it does not, and that it is indigestible to most stomachs. It has acquired an undeserved reputation, and may be mischievous in the various forms of dyspepsia. Dr Noel Gueneau de Mussy, however, is of opinion that this plant is possessed of real therapeutical powers, and he has, on many occasions, derived advantage from it in chronic cutaneous affections. He recommends its being prepared for the table in the same way as spinach, when it is easily digested and of a pleasant taste, or the cress may be carefully washed, cut up into small pieces, and then submitted to a press in order that its juice may be expressed. This is a little acrid, but may be corrected by syrup of bitter oranges or of horse-radish. Dr Campardon has also found it of utility in darts affections, as Dr C Paul has in several cases of diabetes.—*Med Times and Gazette, Aug 4*

CLINICAL CHARACTERS OF WOOL SORTERS' DISEASE (ANTHRAX)—Mr Spear (*Medical Times and Gazette, July 21*) has prepared a memorandum on behalf of the British Local Government Board for use in an inquiry into the occurrence of this disease amongst men employed in hide warehouses, tanneries, etc

The Internal Form of the Infection, or Anthrax Fever—Premonitory symptoms (of variable duration) Chilliness, aching or stiffness of limbs, and mental depression, restlessness, sense of constriction of chest, and oppression of breathing, headache, dizziness, nausea, or, less frequently, vomiting

Stage of full development Notwithstanding the indefinite premonitory symptoms, the stage of full development is generally somewhat sudden and unexpected in its onset, so as to cause much alarm. The prostration and restlessness become extreme, there are præcordial anxiety and dyspnœa, blueness of the face and extremities (cyanosis) is conspicuous, and the patient may die within twenty-four or thirty-six hours, with all the appearances of collapse or of asphyxia. A fatal termination is, however, more often postponed until from two to five days after the commencement of this stage. Other nervous phenomena—muscular paralysis, convulsions or tetanic spasms—are apt to develop themselves, and evidences of various acute local congestions (especially of the lungs, less frequently of the gastro-intestinal tract) are rarely wanting. Delirium is often absent, and the temperature is irregular. Exacerbations, alternating with more or less complete remissions, of the more urgent symptoms constitute usually a striking feature of the disease. Recovery is not so rare as has been supposed, even in fully developed attacks, but death may occur from a relapse, or from secondary septic processes. The body after death usually undergoes rapid decomposition, with blue discoloration and swelling, especially about the neck.

The External Form of the Infection, or Malignant Pustule—The malignant pustule attacks almost always parts of the body habitually uncovered, and most frequently the face. It commences as a small

papule, which quickly develops into a vesicle, and this, being broken, pours out a little watery exudation. The base of the vesicle and the surface immediately adjacent dies, so that in about three days after its appearance the lesion consists of a small central black eschar, with a raised border of inflamed and tumid skin, upon which vesicles are apt to be developed, a crop of secondary vesicles surrounding thus the central eschar like a wreath. The neighboring lymphatics and glands are speedily implicated, and the patient may soon lapse into the condition described above, of constitutional infection. The pustule does not apparently always present this typical appearance. When occurring upon the hands, such appearance is uncommon. It has then no central black eschar, no raised vesiculated border. It is described as a small slightly inflamed tumor, exuding only serosity, giving rise to comparatively little pain, or even increased sensibility, but showing a tendency to set up a diffuse cellulitis. Constitutional infection may follow.

SCARLET FEVER IN ITS RELATION TO THE PUERPERAL STATE—J. T. Burgess, L.R.C.P., L.R.C.S., Edin., in a communication to the *Lancet* August 25, records a case of scarlet fever occurring in a puerperal woman, delivered five days before the appearance of the disease, and resulting in tympanitis, delirium and death thirteen days after delivery. She was confined in an isolated cottage, in a sparsely populated district, and in which, twelve months previously, scarlet fever had prevailed. The house had never been disinfected, and in hurriedly preparing a room for the reception of the patient, a quantity of old sacking was removed from the chimney. While in attendance upon this case, and the day before her death, the recorder delivered another woman, seven miles distant, who, in turn, was taken with scarlet fever, showing soon after delivery symptoms of constitutional disturbance, and on the third day sore throat, on the sixth day the rash appeared. She passed through the stage of desquamation, but suffered from pneumonia and abdominal tympanitis, and died on the twenty-third day from exhaustion. A younger sister, who had been in attendance on her, passed through a slight attack of scarlatina. There had been no scarlet fever in the village where the second case resided, nor, as far as could be ascertained, could she have had communication with any one suffering from that disease. The more important complications appeared to take the form of serious inflammation, and to be exaggerations of the after-consequences rather than of the primary symptoms of disease.

THE ACTION OF SALINE CATHARTICS—Dr. Matthew Hay has recently conducted a series of experiments upon animals, to properly define this subject, in the pharmacological laboratory of the University of Edinburgh, the result of which he has published in the *Journal of Anatomy and Physiology*. The following embody some of the conclusions at which he arrived.

The excito-secretory action of a saline purgative is

probably due to the bitterness as well as to the irritant and specific properties of the salt, and not to osmosis.

The low diffusibility of the salt impedes the absorption of the secreted fluid.

Between stimulated secretion on the one hand, and impeded absorption on the other, there is an accumulation of fluid in the canal.

Purgation will not ensue if water be withheld from the diet for one or two days previous to the administration of the salt in a concentrated form.

Unless the solution of the salt is more concentrated than 10 per cent it excites little or no secretion in the stomach.

The salt excites an active secretion in the intestines, and probably for the most part in the small intestines.

The bile and pancreatic juice participate but very little in the secretion.

The secretion is probably a true *succus entericus*, and is promoted by local irritation, while absorption by the intestine generally is reflexly stimulated by such irritation. As this secretion contains a very small proportion of organic matter as compared with the inorganic matter, the purgative removes more of the latter than the former from the blood. In certain cases a large quantity of the salt in the blood is thus evacuated.

The salt, after some hours, causes diuresis, but the amount of the normal constituents of the urine is not affected.

GOOD REMEDIES OUT OF FASHION—In an address on this subject delivered at the Annual Meeting of the Metropolitan Counties Branch of the British Medical Association, by the President, Dr. C. J. Hare, late Physician to University College Hospital, the lecturer made some interesting observations on emetics and bleeding.

"It is not long ago that in a very urgent case of bronchitis, I advised the administration of an emetic, when the gentleman whom I had been called to meet in consultation said, 'Why, I never gave an emetic to an adult in my life.' In former times, it was not unusual, on the contrary, to commence the treatment of many diseases with the administration of a dose to procure vomiting, and although the remedy might then be given sometimes indiscriminately and according to routine, only those who have seen the effects of emetics, properly and judiciously given, can conceive the beneficial effects they sometimes produce. In the early stage of an attack of croup, it was by no means unusual to give an emetic of tartarized antimony or of ipecacuanha, and it is in accordance with the recorded experience of some of the best authorities and most practical men, and quite consonant with my own experience too, that symptoms which presented the most certain augury of a severe attack were by these means cut short, the hoarse voice resumed its natural character, and the feverish symptoms were in a few hours relieved. I know quite well that a great fear is entertained by some as to the depressing effects of emetics, but the fear is theoretical, and not practical, and those who have had most

experience in the administration of them best know how groundless the fear is. In diphtheria, too, I have seen the false membranes which are out of the reach of local remedies, and which the patients cough and cough in vain, and utterly exhaust themselves to get quit of, readily brought up by the action of vomiting, to the immense relief of the sufferer.

"In suffocative bronchitis, the effect of emetics is sometimes magical, and by their administration in such cases not only is immense relief given, but I verily believe—I am certain—that lives are saved. You are called to a patient who has been ill a few days, with increasing dyspnoea, she is sitting up in bed (I draw from nature), for to lie down is impossible, she is restless, and tossing about, the lips, and indeed the whole face, blue, the eyes watery and staring, the pulse quick and small, the cough constant, the expectoration semi-transparent and tenacious, over every square inch of the chest, front and back, from apex to base, you find abundance of rhonchi, moist, sonorous and sibilant ones in the upper part of the lungs, and muco-crepitant or mucous *râles* towards the bases. Ammonia and stimulants, right and good in their way, perhaps, in such a case are too slow in their action, the patient is, in fact, more or less slowly, more or less rapidly suffocating. An emetic of twenty-two grains of ipecacuanha in an ounce of water is given, in ten or fifteen minutes the patient vomits, and brings up a huge quantity of that tenacious mucus, and the whole aspect of the case is altered, the distressed countenance is relieved, the breathing is at once quieter, and the patient is able, for the first time for the past twenty-four hours, to lie moderately low in bed, and to get some sweet, refreshing sleep. The patient is, in fact, rescued from the extremest peril, and in this case, and in many similar ones, too, I believe, from otherwise most certain death. Of course, in such cases the emetic is not given for its effect on the stomach, but for its collateral effect in mechanically clearing out the enormous amount of secretion which accumulates in the bronchial tubes, and which the patient is otherwise quite incapable of getting quit of, and thus the half-choking, almost asphyxiated condition is changed for one of comparative comfort, and time is gained for the action of other appropriate remedies. No doubt the secretion may, and often will, accumulate again, and I have not hesitated again in bad cases to repeat the same good remedy, but it is a fact, and a very positive one, too, that, quite contrary to what those who have had no experience in the plan suppose, the system rallies instead of being more depressed under the action of the remedy.

"There is a class of cases in which the right heart is engorged with blood, and in which the only hope of rescuing the patient from death is by bleeding. A man of middle age (I again draw from nature) has considerable chronic bronchitis, with some congestion of the lungs, and, like many other unwise persons, he goes to a southern watering place, instead of remaining in his room and in an uniform temperature. Becoming worse, he determines to return home, and travels on a cold spring day, his dyspnoea

is so much worse on the journey, that his friend and fellow-passengers doubt whether he will arrive home alive, and when his carriage meets him, it is with the greatest difficulty he is conveyed to his house and got into his drawing-room. You are at once sent for, the message being that the patient is dying, and when you arrive you find that that is the fact. He is sitting in a chair (to lie down is impossible for him), his face is blue and swollen, his lips purple, the eyes suffused and staring, his heavy, gasping breathing you have only too distinctly heard and recognized as you ascended the stairs, and when you see him you find his chest heaving, and each short, gasping inspiration followed by a long wheezing and moaning expiration, his lungs are full of moist sonorous, and mucous and submucous rhonchi, and scarcely a trace of vesicular respiration is to be heard, and he is pulseless. He looks to you beseechingly, and gasps out, in scarcely articulate words, that he is dying. This is but too true. Now, the treatment for such a condition at the present day is "to pour in stimulants" (though the patient can scarcely swallow). Brandy and water are given, and ammonia, and perhaps ether, then, if the patient live long enough to have them made, mustard poultices are applied to the chest, and to the calves, and to the feet, and the patient is fanned, and the patient dies. Something has been done, but that which true pathology—and, indeed, common sense, unshackled by prejudice, custom, and fashion—would dictate, has been left undone. Appearances have been saved, but not the patient's life.

"The fact is, that here the danger lay in the right side of the heart being gorged with blood, so that it was impossible for its stretched and distended walls to contract and to propel forwards the thick and blackened blood. Oh, as you value your patient's life, as you value the blessed consciousness of being a minister who has done everything possible for his welfare, let me beg of you not to be contented with the futile treatment of to-day, relieve that poor oppressed distended heart, and all may be well. Open one of the veins which are, with every systole of the heart, tending to carry more and more blood to this already distended right ventricle, and all may yet be well with your patient. Sometimes this blood-letting in extreme cases is no easy matter. It may be necessary, before you can effectually open the vein, to place the patient's arm in warm water, so as sufficiently to distend the vein, and even when the ligature has been efficiently applied, and the vein well opened, you may have to press and squeeze and rub upwards the arm before a drop of the thick and tarry blood will flow. But, when it does flow at length freely, oh, what a marvelous change may you see take place. The breathing becomes quieter, deeper, and less noisy—the haggard face resumes the appearance of tranquility, the blueness of the skin is replaced by a more natural tint, the pulse becomes more and more distinct, and, in a word, the choked up heart is set free. This is no fancy picture. Every word is simple truth, and I appeal for confirmation to the memory of every senior member present who recollects the experience of his earlier days, and who can

also probably tell you that the after progress of such cases was sometimes almost miraculously rapid, so that in a few days even, the patients might become convalescent"—*British Medical Journal*

MINERAL WATER INHALATIONS—W G BLACK, F R C S E, describes in the *Medical Press and Circular*, of July 18, the system adopted in pneumatic affections at Bournemouth as similar to that used in some Spas abroad. The mineral vapor is introduced into large rooms, with cemented walls and stone floors, and the windows and doors are closed for the short period of inhalation required by the patients sitting inside them. The vaporization is chiefly effected by spray machines, so that the temperature of the inhaled mixture of air and water is kept at a moderate degree, and within physiological limits for absorption by lungs and skin. The invalids at their hotels dress in flannels, and are carried in closed sedan-chairs to the inhalation chamber, where they sit down on the benches or chairs to inspire the vapor, or walk about to and fro on the floor. After a quarter of an hour's treatment the chamber is opened, and the patients return to their hotels. The vaporization being effected by the spray machine, along with air or steam, as the motive power of the blast, the temperature need not necessarily be at an uncomfortable height for sustaining its maintenance and respirability along with common air.

THE COUVREUSE OR MECHANICAL NURSE—After two years' trial, says the *Lancet*, the *couvreuse* has proved so decided a success that a brief description of this ingenious contrivance may be desirable. It was in 1878 that Dr Tarnier, when visiting the apparatus devised by M Odile Martin for artificially hatching and rearing chickens at the Jardin d'Acclimation, suggested that a similar method might be applied with advantage to infants, especially in cases of premature birth. Two years elapsed, however, before any attempt was made to carry out this proposal, but in the course of the year 1880, a *couvreuse* was made, and brought to the hospital of the Maternitee. This is a plain wooden case or box, measuring about 2 ft 8 in by 2 ft 4 in and 2 ft 4 in in height. The box has a double covering, the space between being filled with sawdust to retain the heat, and is divided into two parts. The lower half contains a reservoir, which holds about sixty liters of water, and is fed by a patent boiler that stands outside the box, and is warmed by an oil lamp, or hot water may be used without recourse to the lamp. The upper portion of the box forms a warm chamber, where a little basket or cradle is placed, large enough to hold two infants. From an opening at the side, this cradle may be withdrawn, while the top of the box has a double glass covering, so that the children and the thermometer lying by their side can be constantly watched. If the water used in the first instance is cold, it takes a long time to attain the required temperature, but once this is done, the lamp need only be re-lit three or four times during the course of the day. It is best to warm the apparatus

while the infants are being fed or washed. The temperature within the *couvreuse* is generally maintained at 86° F, and, though the contrast on withdrawing the child to be fed or washed is very great, amounting often to 30° F, colds are not so frequent as among the infants nursed in the ordinary manner. Altogether the experiment is considered so successful that it is proposed to supply all the hospitals of France with a *couvreuse*, and there is every reason to anticipate good results from this measure. Nor is this all. A small portable *couvreuse* is now about to be tried, which could be carried by hand from house to house. After this we shall probably have perambulators constructed on the same model. In conclusion, we should remark that, though no very careful experiments have been made with respect to the ventilation within the *couvreuse*, yet this is evidently sufficient. Apertures are made in the lower portion of the box, the fresh air travels over the hot-water reservoir, and is thus warmed before it reaches the child. The very great difference of temperature within the *couvreuse* insures a constant current of air, though the child is protected by its cradle and clothes from any draught.—*New York Medical Journal*

THE celebration of the one hundredth anniversary of the establishment of the medical school of Harvard University, and dedication of its new building, will take place October 17, 1883

PROGRAMME

I—MASSACHUSETTS INSTITUTE OF TECHNOLOGY, HUNTINGTON HALL, AT 11 O'CLOCK A M

Address by the President of the University

Oration by Emeritus Professor Oliver Wendell Holmes

Presentation of a Portrait of Professor Holmes and a Bust of Professor Henry J Bigelow

II—MEDICAL COLLEGE, BOYLSTON STREET

Prayer by Rev A P Peabody, D D

Dedication of the new building to the purposes of medical instruction

Reception of subscribers to the building fund, and invited guests, by the Medical Faculty

Exhibition of the building

Lunch will be served from 1 to 2 P M

DR JAKSCH, of Vienna, formerly Professor Nothnagel's assistant, has been made a Privat-Dozent in medicine, Professor Schwalbe, of Königsberg, becomes Professor of Anatomy, succeeding Professor Waldeyer at Strassburg

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY, FROM SEPTEMBER 7, 1883, TO SEPTEMBER 14, 1883

Banister, J M, First Lieutenant and Assistant Surgeon, assigned to duty at Fort Adams, R I (par, III, S O No 170, Department of the East, September 10, 1883)

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, SEPTEMBER 22, 1883

PREVALENCE OF EPIDEMIC AND INFECTIOUS DISEASES—Although vessels have recently arrived at the quarantine stations both of Portland and New York, with cases of yellow fever on board, the disease has not been communicated to any new place in our country outside of the quarantine stations. It continues to prevail to a limited extent at the navy yard near Pensacola, but the city is still reported healthy and free from cases of the disease. The cholera plague is steadily diminishing in Egypt, although the question whether it will make its appearance in Europe and this country during the next summer continues to be discussed with earnestness on both sides of the Atlantic. Yet the question is one that no individual can answer until the season comes. If the coming summer should be characterized by a persistent temperature, decidedly above the average, and any place in Europe or America should allow such an accumulation of unsanitary influences as existed at Damietta, and in most of the centers of population in Egypt during the summer just past, they may rely, with much certainty, on reaping a harvest of death, either from epidemic cholera, or its equivalent. For notwithstanding all the theoretical assertions that the cholera can originate *de novo*, only in the valley of the Ganges, there is nothing in the history of past epidemics, nor in the known laws of nature, which go to show that the same combination of high temperature, decomposing animal and vegetable matter and aggregations of unsanitary people, that give rise to cholera on the banks of the Ganges, will not just as readily produce it on the banks of the Nile, the Hudson, or the Mississippi. On the other hand a

strictly sanitary people, supplied with pure water and living on a clean soil, need suffer no great anxiety about a visitation of cholera at any time. We would have all the avenues by which infectious diseases could be introduced from infected places into our country, guarded by a rigid system of marine inspection, detention and care of the sick, and the thorough enforcement of marine hygiene in regard alike to ships, cargoes and passengers. But we would not have it forgotten that the safety of every community so far as regards the prevalence and fatality of infectious diseases depends mainly on its own local sanitary condition.

COLLEGE APPOINTMENTS—Owing to the continued ill-health of Professor J. S. Jewell, who has filled the Chair of Mental and Nervous Diseases in the medical department of the Northwestern University, better known as the Chicago Medical College, for many years, he has been appointed Emeritus Professor of Psychological Medicine, and Prof. Walter Hay has been transferred from the Chair of Materia Medica and Therapeutics to that of Mental and Nervous Diseases and of Medical Jurisprudence. During the long period that Professor Jewell has been connected with the college in the capacity of an active teacher, he has filled the positions assigned him with an ability and enthusiasm rarely equaled. And it is hoped that one or two years rest from such labor will enable him again to give the college the benefit of active service. The Chair of Materia Medica and Therapeutics made vacant by the transfer of Professor Hay has been filled by the appointment of W. E. Casselberry, A. M., M. D., of this city. The new appointee is a man of classical general education, and he has availed himself of the best advantages to be had in this country and Europe in special preparation for the duties of his new position. He has given evidence of rare ability as a teacher, and will be a valuable addition to the Faculty of one of the best medical schools in this country.

THE TRI-STATE MEDICAL SOCIETY—As this number is going to press, this important medical organization is holding its annual meeting in Indianapolis. An account of its doings will be found in our next number.

PROGRESS OF STATE MEDICINE

INDIANA—From the replies made to the questions proposed by the chairman of the Section on State Medicine, by Dr. T. M. Stevens, of Indiana, we learn that a law was passed by the legislature of that

State, creating a State Board of Health, and providing for the creation of county, town and city boards throughout the State, in 1881. At the time of making his report to the chairman of the Section, previous to the meeting of the Association in Cleveland, in June last, he states that ninety-one of the ninety-two counties constituting the State, had formed auxiliary health organizations by electing a county health officer. And 235 city and town boards had been organized prior to May, 1882. The health law of this State somewhat resembles those of Michigan and Wisconsin.

MISSOURI —Dr E W Schauffler, of Kansas City, Mo., reports in regard to the progress of medical and sanitary legislation, as follows:

Answers to first and second points

The first legislation in Missouri in regard to a State Board of Health, or its equivalent, was an act passed at the session of 1883, and approved March 29, 1883. This law, under a general constitutional provision, will go into force July 1, 1883, so that until that time there can be no Board of Health. The act provides in general as follows:

For the appointment by Governor, with consent of senate, of seven persons, to constitute the "State Board of Health of Missouri," members to hold office for seven years (of the first seven, however, four shall hold for two years and three for four years) Governor to fill vacancies, which shall be confirmed by senate at next session.

Five of board, at least, shall be "physicians in good standing, and of recognized professional and scientific knowledge, and graduates of reputable medical schools," and must be residents of the State for five years preceding. In appointments there shall be no discrimination made against the different systems of medicine "recognized as respectable by the laws of this State."

The board has general supervision over "health and sanitary interests of the citizens of the State." Their duty to recommend such laws to the General Assembly as they "deem necessary to improve and advance the sanitary condition of the State." To make similar recommendations to municipal authorities of any city, or to county courts.

Board has power by majority vote to "establish quarantine regulations" against any city or district in the county when satisfied that any "malignant, contagious, or infectious disease exists" in such city or district to such extent as to endanger the lives of citizens of Missouri, having direct communication with such infected city, etc., and may make rules to prevent introduction and spread of such disease, and may call on any executive officer to enforce such rules, and it is made duty of all executive officers of State, sheriffs, constables, etc., to assist the board to carry out provisions of this act.

Board to give public notice of such diseases being epidemic, and of rules established, and any persons "resisting by force" such regulations, may be fined from \$10 to \$500 for each offense.

Board to have supervision of registration of births and deaths, shall prescribe such forms and recommend such legislation as shall be deemed necessary for a thorough registration of vital and mortuary statistics through the State. Secretary of the board shall be superintendent of such registration.

All physicians, accouchers, etc., to register names with county clerk, and shall, under penalty of fine of \$10, report to county clerk within thirty days of occurrence, all births and deaths coming under their supervision, with certificate of cause of death, and such other facts as board may require.

When birth or death takes place without attendance of physician, etc., same shall be reported by certain relatives, under penalty as above.

Coroners shall do same in regard to deaths coming under their supervision.

Board to prepare and furnish to county clerks printed forms of certificates of births and deaths, as they deem proper, and such reports to be given to persons required to make reports.

County clerks to provide books for registration of above data, and at end of each year to send copies of same to secretary of board.

Meetings of board to be in January and July, and when expedient, four members a quorum, shall choose from own number president, vice-president and secretary, and may adopt rules and by-laws. Secretary's duties to be prescribed by board and this act, and salary fixed by board, also, shall receive his traveling and other expenses in execution of official duties, as shall all members of board.

Board shall take cognizance "of any fatal diseases prevalent among domestic animals of this State, and ascertain nature and cause" thereof, and publish results of research, with suggestions as to treatment and remedy therefor.

President of board has power to administer oaths and the board to take testimony.

Board to make annual report to governor, including such information on subjects within jurisdiction of board as may be thought useful by board, "for dissemination among the people," with suggestions for legislative action.

Six thousand dollars appropriated for expenses under this act.

There is nothing, so far as I can learn, in the statutes of Missouri declaring what diseases are held to be communicable or dangerous to public health.

NORTH CAROLINA —To the questions of the Chairman of the Section, Dr C W Woollen, of Randleman, N C, makes the following brief reply:

DEAR SIR I herewith enclose you a brief of what I regard as covering the ground, as per statement forwarded to me.

1st We have a State Board of Health in North Carolina.

2nd No changes during the past year.

3rd We have local organizations in many of the counties, but the exact number cannot be given.

4th No changes that I see noticed.

Small-pox and yellow fever occasionally on our sea coast.

5th No new laws nor amendments of old laws in relation to vital statistics

How can medical men *best* promote sanitary progress? First, by denouncing the use of *whisky* and *tobacco* in *toto*, together with many other vicious habits indulged in by the people. The family physician can do much, perhaps more than other persons, to improve the habits of the younger members of families he visits, as a physician, by calling their attention to those vicious habits which he may observe in any of them, that they may be corrected at once before the habit is fully formed.

Explain to them the terrible consequences that must necessarily follow the continued use of these dreadful poisons.

I do not feel prepared now to venture an opinion on the second part of the great question for consideration at our next meeting, at Cleveland, Ohio, June 5, 1883.

MINNESOTA —The report from this State consists of a printed copy of the law passed by the Legislature, and approved March 3, 1883, entitled "an act relating to infectious and epidemic diseases, and to the preservation of the public health." The law contains thirty-one sections, and makes provision for a State Board of Health, and local auxiliary Boards throughout the State. If carried out efficiently, it should give the State a thorough health organization.

MISSISSIPPI —The report for this State also consists of a copy of the recently enacted laws for the establishment of a State and local Boards of Health, and the protection of the people from the introduction of contagious and epidemic diseases.

BOOK REVIEWS

ON THE PATHOLOGY AND TREATMENT OF CERTAIN FORMS OF NERVE WEAKNESS. BY C. L. DANA, A. M., M. D., Professor of Mental and Nervous Diseases, etc., etc.

This is a pamphlet of twenty-eight duodecimo pages, reported from the *Medical Record* of July 21, 1883. The author includes under the head of "Nerve-weakness" the following divisions or varieties of nervous disorder.

I "Nervousness" —Characteristics. A general irritable weakness of brain, cord, etc., special neuro-mechanisms not seriously and chronically affected so as to react and increase the general trouble.

II "Neurasthenia (nerve-enfeeblement proper)" —Characteristics. 1, irritable weakness of nerve-centers and mechanisms, 2, or absolute weakness of same, 3, a localization of the disease in various neuro-mechanisms, causing special (gastric, sexual, etc.) forms of neurasthenia, which react to keep up the disease. The phenomena of lessened resistance, of enfeebled controlling centers enter into the disease more or less.

III "Hysteria (a neurosis and psychosis combined, but more the latter)" —Characteristics. 1, a

'shelving-off' of higher controlling powers, 2, greatly increased irritability (with weakness) of lower centers, especially (a) emotional, (b) spinal reflex, culminating in *convulsions*, 3, localized disturbances of various neuro-mechanisms (motor, cardiac, gastric, sexual, etc.), these disturbances being more acute, more variable, more pronounced than in neurasthenia proper, 4, special irritability of nerve-centers to sexual stimuli.

IV "Hypochondriasis" —Characteristics. 1, special sensitiveness (i. e., increased irritability) of emotional and perceptive centers to visceral and sensory impressions (morbid self-concentration), 2, lessened resistance and overflow of visceral and sensory impulses.

In regard to the "fundamental changes, anatomical and chemical," in these so called varieties of nerve-weakness or grades of neurasthenia, he says:

"Thus we can say with some confidence that underlying these disorders there are the following conditions:

1 "An imperfect tissue nutrition and metamorphosis, a kind of tissue-dyspepsia which results in making the nerve molecules unstable.

2 "Coincidentally there is often, if not always, some derangement in vascular supply. This vascular change, I venture to say, is always an *anæmia* or a venous hyperæmia, true hyperæmia is not present, except incidentally and temporarily in chronic functional nerve weakness, since it is always the correlative of increased functional power.

3 "Some permanent chemical changes are very likely present. These changes cannot be great as regards the nerve-elements themselves, for all tissues, as long as they act and preserve their identity, must have about the same composition. I doubt if the balance of the chemists will ever tell us what are functional diseases. But the chemical products of tissue activity may be altered, as shown by the character of the excretions."

These propositions certainly do not add much to the clearness or extent of our knowledge of the real pathology of a large class of very common nervous disorders. The word "dyspepsia" is sufficiently indefinite when applied to the functional disorders of the stomach, and it is still less comprehensible when applied to the atomic or molecular changes in the organized structures. It has seemed to us that many of the cases of nervous exhaustion or neurasthenia of the present day were genuine cases of morbid increase of the inherent or elementary susceptibility of the nerve structures, instead of either exhaustion of nerve force or vascular *anæmia*. In a large proportion of cases the predominant symptoms are the result of exaggerated impressions or effects of causes acting in only moderate or natural degrees of intensity. For instance, the stimulus of a degree of light, sound, or mental action, which in the natural state of nerve susceptibility would produce only pleasant and ordinary effects, in those cases of so called neurasthenia produce effects so exaggerated as to constitute morbid phenomena, more or less distressing to the patient. To call such morbid excitability or increased susceptibility to impress-

ions in any part of the nerve structures either weakness or anæmia appears like perverting the ordinary meaning of terms. Neither do many of the patients usually included in this class show any of the ordinary indications of either defective nutrition or of blood impoverishment. We think there is need of greater discrimination between these cases of increased nerve susceptibility, and those presenting actual anæmia and weak or impaired excitability, if we would adjust treatment in such a way as to attain the highest degree of success.

The same author, in a brief paper read at the recent Annual Meeting of the American Neurological Association, gives the result of his experience in the use of hydrobromic acid in various nervous affections. In this paper, as reprinted from the *Journal of Nervous and Mental Diseases* for July, 1883, his clinical results are stated as follows:

"I have now used hydrobromic acid in the treatment of various nervous affections for nearly two years. At the Northeastern Dispensary the druggist informs me that the amount prescribed for the class of nervous diseases exceeds three pounds a month. I have used it in over fifty cases, of which I have notes, besides others:

These cases were

Epilepsy	6	Chorea	2
Alcoholism	2	Insomnia	3
Headache (congestive)	1	Hysteria	3
Headache (malarial)	4	Post hemiplegic cere	
Spermatorrhœa	2	bral (vascular) dis	
Vertigo	6	turbances	3
General nerve weakness		Senile melancholia	1
(nervousness)	6	Paralysis agitans	1
Various forms of neuras			
themia (sexual, gas			
tric, cerebral)	12	Total	52

"*Hydrobromic acid in epilepsy*—When I first began to use hydrobromic acid in epilepsy, I was greatly encouraged by the result. The first of my six cases was a most obstinate one, a young man of 20, who had suffered from grand mal and petit mal since his 9th year. He had run the gauntlet of several nerve-clinics in the city, and had been assaulted by all the anti epileptic remedies in the pharmacopœia. He was having attacks every day, sometimes several in the day. Under the acid he often went from one, two or three weeks without any fit. He was given the acid for six or seven months, in doses of 5 iv 5v a day. After a time it began to lose its hold, and I added oxide of zinc. Finally the patient passed out of my care. He subsequently died in a convulsion.

"In three succeeding cases the disease was much milder, and the attacks came on only once or twice a month.

"In these cases the acid stopped the fits for a time at least, and as long as they were under my care. I subsequently lost sight of them.

"In two remaining cases there was no great benefit. Both of these patients suffered from both the grand mal and petit mal, and were old and obstinate cases. One of them when put upon very large doses of bromide of sodium did better than upon the acid. In the other the acid seemed to do nearly as well as the bromide. The convulsive attacks were nearly stopped, but the petit mal could not be controlled.

"I think that in epilepsy hydrobromic acid can not be used as a substitute for the bromides, except in the more controllable cases, when one wishes to keep up a mild sedative effect for a long time. Yet, it undoubtedly has an influence over the disease, and I do not yet feel certain that if given in equivalently large doses it might not be as efficient as the alkaline salts.

"*In chorea*—Hydrobromic acid can be used advantageously as a medium for the use of arsenic or nux vomica, when it is desired to give a sedative. Doubtless an ordinary solution of arsenious acid in hydrobromic acid is quite as good as the much-vaunted formulae of Clemens and Gilliford.

"*In alcoholism*—The acid failed in two cases of acute alcoholism, the patients being on the verge of delirium tremens. Bromides and chloral subsequently gave relief.

"*With quinine to prevent cinchonism*—Hydrobromic acid is a good solvent for quinine, but it does not, according to my experience, prevent cinchonism, as has been asserted—certainly not in the small doses usually prescribed.

The best results which I have obtained from hydrobromic acid were in conditions of nervous irritability, congestive headaches, post-hemiplegic circulatory disturbances, irritable heart, stomachal vertigo, where a general nervous and vascular sedative is indicated.

In most cases of insomnia it also acts well. I would say positively that I can give the acid with just as much confidence that it will produce nervous sedation as when the alkaline bromides are prescribed.

Its advantages are that in moderate doses it is not disagreeable, it does not constipate, or irritate the stomach, it may be given when an acid is indicated for the stomach. It can be conveniently prescribed with iron and tonics. Finally, in the largest doses, long continued, I have never seen any sign of bromism or any disagreeable constitutional effect, other than some drowsiness. A disadvantage is that when very large doses are to be administered, the amount of acid to be taken is disagreeable."

THE COLLECTIVE INVESTIGATION RECORD Edited for the Collective Investigation Committee of the British Medical Association. By PROF. HUMPHREY, M.D., F.R.S. Chairman, and F. A. MAHOMED, M.B., F.R.C.P., Secretary of the Committee. Printed and published by the British Medical Association, 161A, Strand. July, 1883. Price 2s.

This is the first number of a record designed for embodying the results of the collective investigation work now being prosecuted on a systematic plan in Great Britain, the prominent features of which were presented in our editorial columns of a recent number of this JOURNAL. The present number of the *Investigation Record*, contains 190 pages, embracing a short history of the Collective Investigation movement, addresses by Sir W. Gull and Sir James Paget, a Report on the Communicability of Phthisis, preliminary Reports on Acute Pneumonia, on Chorea,

Acute Rheumatism, and Diphtheria, communications on "A calculation of the probability of the accidental and fatal incidence of phthisis upon both husband and wife," and on "The collective investigation of disease," together with several other items of interest, to some of which we shall recur hereafter

MASSAGE, ITS MODE OF APPLICATION AND ITS EFFECTS By DR DOUGLAS GRAHAM, of Boston, Mass Reprinted from the *Popular Science Monthly*, October, 1882 New York S H Vail & Co

This is a well written plea in favor of massage as an important remedy in the treatment of certain chronic morbid conditions, and the necessity of distinguishing it from mere indiscriminate rubbing. Though written more particularly for non-professional readers, it may be read with profit by all. It is a pamphlet of 17 pages

WHAT IS THE RATIONALE OF TRACTION AND COUNTER-TRACTION IN THE TREATMENT OF HIP-DISEASE By A B JUDSON, M D, Orthopaedic Surgeon to the Out-Patient Department of the New York Hospital Reprinted from the *Medical Record*, May, 1883, pp 12

THE FIXATIVE POWER OF TRACTION, IN THE TREATMENT OF HIP-DISEASE By A B JUDSON, M D etc, etc Reprinted from the *Medical Record*, July, 1883, pp 17

These two pamphlets from the pen of Dr Judson, present an able and interesting discussion of the important practical points indicated by their titles

BOOKS AND PAMPHLETS RECEIVED.

Studies in Biological Laboratory of Johns Hopkins University

Report Pennsylvania Hospital

A Tracheotomy Tube for Gradual Withdrawal By H F Hendrix

Proceedings American Pharmaceutical Association, 1882

Transactions of the Medical Society of Pennsylvania, 1883

Transactions of the Medical Society of Tennessee, 1883

Report on Diseases of Women from the First Congressional District By R J Munn

Nerve Inhibition By H O Thomas

Report of the Surgeon-General of the Navy, 1881

MEDICAL SOCIETY PROCEEDINGS

STATE MEDICAL SOCIETY OF WISCONSIN

An adjourned meeting of the State Medical Society of Wisconsin was held in the city of Milwaukee on the 4th, 5th and 6th of September. This meeting was, to all intents and purposes, the thirty-

seventh annual session of the Association, which should have been convened in May last, but was postponed to the above mentioned time

Dr T P Russell, President of the Society, was absent upon a European tour, and the usual presidential address was therefore dispensed with. Dr D Mason, of Milwaukee, Vice President, presided.

Dr J S Walbridge, of the Committee on the Practice of Medicine, made a report which dealt more especially with the forms of fever prevalent in Wisconsin and its vicinity. He claimed that they were chiefly malarial in type, even though such symptoms as intestinal hæmorrhage might occur in their course, and post-mortem examination might reveal ulcerated peyerian glands. Reference was made at some length to the means employed in treating the fevers in question, quinine and the cold sponge bath being apparently those in which the reader had most confidence. The thermometrical indications in each case were to be carefully regarded, but caution must be exercised in respect to the instrument used, some of the clinical thermometers in the market being very untrustworthy.

Dr Walbridge considered it the duty of the general practitioner, who had but few facilities for entering upon the investigation of the more profound problems offered by pathology or physiology, to note and record for the benefit of his professional brethren the effect of therapeutic agents, for the observation of which his opportunities are many.

The most important field of laboratory research at present is the microscopic, and, by reason of the revelations now being made therein, it seems possible that our whole system of therapeutics will be profoundly modified in the near future, that the study of the various forms of zymotic disease will be for the first time placed on a scientific basis, and preventive medicine will take a higher place than it has ever yet assumed in the estimation of the practical physician.

Dr Senn thought that whenever a post-mortem showed ulcerative change in Peyer's patches the fever was typhoid in character, and that there was more danger of mistaking typhoid fever for fever of malarial type than of supposing a malarial case to be one of typhoid. In children the typhoid fever was the more common.

Koch has proved that the way in which bacilli or micrococci act is by producing a change in the white blood corpuscles, by which change their adhesive powers are increased, and embolism and metastatic abscesses are produced.

Such anti-pyretics as quinine, salicylic acid, etc, produce the reduction of temperature by retarding tissue metamorphosis. Kairin was among the most valuable of the anti-pyretics, but its great cost at present was an obstacle to its general employment.

Dr Stansbury agreed with Dr Senn in the opinion that typhoid fevers were more common than those of malarial type in the Northwest, but thought that, especially in the milder cases, all the characteristics of true typhoid were not present. He thought that the non-malarial character of the disease was demonstrated by the fact that quinine had but little influence upon its duration. He had found that an

expectant form of treatment gave better results in his own personal practice than would be obtained from any active measures such as large doses of quinine, etc

Dr Manley had used quinine in large doses with decided advantage. In one instance he had given 20 grs at night to a boy aged 13 years, in whom the premonitory symptoms of scarlet fever in violent form were present, and had repeated the dose on the following morning and had cut the disease short thereby.

Dr Wenzel questioned the propriety of using quinine in such doses as 40 and 50 grs, he thought there might even be danger to life, certainly there was risk of permanent injury to the hearing.

Dr W considered the prevailing type of the fevers most often seen in the Northwest to be typhoid, or low, continued fevers. He did not think that malaria in this latitude amounted to a great deal, because the summer heat was not sufficiently prolonged or sufficiently intense to develop the malarial germs. Among the anti pyretics he thought that digitalis was entitled to a very high place, and that it had particular value in bad cases of typhoid or continued fever.

Dr Steele thought that, though there might be a tendency to the increase of typhoid in sections of the country where the population was extending and the climatic changes incident to cultivation of the soil were going on, typhoid was a very uncommon disease in his own section of the State. He considered the type of the prevalent fevers in Northern Wisconsin to be malarial, and that they might be often quickly broken up by the early use of quinine in doses of 10 or 15 grs daily.

Dr Day said, recurring to what Dr Walbridge had said in regard to the use of cold water sponging as a means of lowering temperature, that in his own practice he preferred to use hot or warm water for that purpose, having found that when cold water was employed excessive reaction was liable to occur.

Dr French had doubts of the utility of cold water sponging so far as the reduction of temperature was concerned. By means of a cold bath prolonged for an hour, he had brought the temperature down in one case from 105° to 103° permanently. He agreed with those who considered the malarial form of fever as being comparatively the more frequent in occurrence.

Dr Barnett could not admit that typhoid fevers were rarely or never seen, but neither could he agree with those who classed all of our low continued fevers as being of typhoid type. He thought that remittents were the more frequent in occurrence.

Dr Davies believed that a change was taking place in the type of fever generally. Typhoid was now seldom seen in his neighborhood, whereas fifteen years ago, it was very prevalent. Remittents he often met with. He thought that he might in the aggregate use as much quinine as other physicians, but he did not favor the enormous single doses had heard mentioned.

Dr Brett had seen in the course of eleven years practice at Green Bay, many cases that had all

characteristics of typhoid, while during the same time he had seen but a single case of typical malarial fever.

Dr Dodson had had many typical instances of typhoid, but thought that almost all kinds of sickness were modified more or less by malarial influences. He had no fear of large doses of quinine, having given from 45 to 60 grains in two doses with only a half-hour interval between them, and had repeated the same treatment on the second day if the fever rose to a dangerous height.

Dr Manley considered that true typhoid fever often occurred, though it might be that *well-marked typical* cases were comparatively rare. In his own practice he had seen cases which he thought could be traced to the use of infected water for drinking, and thought that such use was quite common.

Dr Hoyh was familiar with typhoid fever as it occurred in Norway, where malaria is unknown, and had, during a practice of 14 years in La Crosse, frequently seen cases of typical typhoid fever, identical in all respects with the disease as seen in Norway, the identity being further established by post mortems, while he could not recall a single case of distinct remittent fever. He thought typhoid contagious, and considered that quinine had little if any value in its treatment.

Dr Mann, of the Committee on Practice of Medicine, reported a case of typhoid fever followed by an enlargement of one leg which presented all the symptoms of phlegmasia alba dolens. The swelling was attended by great pain, particularly along the track of the femoral vein. Pneumonia also supervened, but the patient finally recovered.

Dr Senn thought that the swelling in such instances was due to thrombosis of the femoral vein, caused by a deficiency in the *vis a tergo*, while a septic phlebitis produced the condition known as "milk leg."

Dr Barnett remarked that Stokes considered that such swellings of the leg as that reported by Dr Mann were exactly the same as the swellings which sometimes follow parturition, and said that Stokes had actually called both conditions phlegmasia alba dolens. Dr Barnett had seen such cases as Dr Mann described.

"The Pathology and Morbid Anatomy of Tuberculosis," was the subject of a communication presented at the meeting of 1882 by Dr Senn, and it was decided at that meeting to postpone the discussion of the subject to the present session. Dr Meacher, in opening the discussion, said that pathologists were yet at variance upon the question whether tuberculosis itself were inherited or only a predisposition thereto, and that the best clinical observers were as yet in doubt. In a recent number of the *Lancet* was an article, in which the writer said that experience does not teach us whether tubercular disease is inherited, or whether the soil is simply made ready for it. In some cases it

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predisposition, but this may be successfully resisted if the general system be robust, while, on the other hand, a fertile soil is ready for the occupancy of any tuberculous bacilli that may find entrance, if the system generally be debilitated. Such hereditary predisposition consists in a peculiar anatomical arrangement of cells. The bacillus, or micrococcus, enters the white corpusculi of the blood, where it effects a deleterious alteration of character, which determines a specific inflammatory process, produces embolus, and favors local congestion.

From the Committee on Surgery, Dr Meacher presented a report of a case of lithotrity, and a paper on Antiseptics. Dr Meacher considered the best antiseptics to be carbolic acid, iodoform, and corrosive sublimate. He also called attention to the value of absorbent cotton as a surgical dressing. He did not attach any very great importance to the carbolized spray, even in operations in which some surgeons thought it indispensable, and stated that the results of his own practice justified its omission.

Dr Binnie reported a case of strangulated female hernia, which was operated upon with the result of forming an artificial anus. The patient made a good recovery with the closure of the opening in the course of three months.

Dr Binnie favored early operation in similar cases before the strength of the patient was exhausted by efforts at reduction. Such early operation, the subject being otherwise in good condition, was attended with less risk than an operation after prolonged taxis.

Drs Stansbury and Reynolds considered that reduction was usually practicable, especially when opiates and anæsthetics were used, and preferred not to operate until it was certain that taxis was useless.

Dr Catlin had used an elastic rubber bandage with success in reducing an oblique hernia. The prolonged and equable pressure excited by the bandage caused reduction after opiates, etc., etc., had failed of effect.

Dr Brett had tapped both the sac and the knuckle of intestine with the needle of a hypodermic syringe, and had afterwards succeeded in effecting reduction. In one case after all other means had failed, he had inserted his finger nail under the constricting ring and, by either stretching, or slightly tearing some of its fibers, had returned the intestine.

Dr Stansbury, of the Committee on Gynecology, read a paper on "Rest, the Great Essential to Complete Involution," taking the ground that the process of involution is governed by laws as fixed as are those which govern pregnancy, and that by enjoining absolute rest in bed for a time sufficiently prolonged to admit of the perfect accomplishment of involution, many troublesome cases of uterine disease following on parturition would be avoided.

Dr Barnett, from the same committee, presented a paper on "Mechanical Gynecology," claiming that the pessary has a much more extended field of usefulness than is generally admitted.

Dr Wenzel, chairman of the Committee on Pathology, read a paper on "The Relation of Diphtheria and Erysipelas to Puerperal Fever," some of his conclusions being as follows. Puerperal fever bears the

same relation to diseases of the puerperal period that hysteria bears to diseases of the nervous system in the female. Septic infection may cause puerperal trouble, but the germs of any disease cannot produce puerperal fever, pure and simple. Zymotic diseases affecting the puerperal woman may become virulent or malignant, but they retain their entity and are the same when under similar conditions in another patient, or in the same patient at a different time. Diphtheria is a grave constitutional disease which affects, principally, persons under 16 years of age. Puerperal fever, so called, is impossible before puberty, and the so-called diphtheritic patches accompanying puerperal diseases may be found also in other lesions in which all the other symptoms of diphtheria are absent. No direct diphtheritic infection has been observed to produce anything else than diphtheria, and if a parturient patient became infected, the disease was diphtheria, and not puerperal fever. Erysipelas may develop in the puerperal woman and prove rapidly fatal, without external manifestations. The diagnosis between erysipelas in such cases and puerperal fever is extremely difficult and often impossible during the life of the patient. That erysipelas has been followed by dangerous or fatal puerperal disease is affirmed, but the number of observations is yet too small to warrant positive conclusions, and that the puerperal woman has the power to change the entity of any disease into any other disease is extremely doubtful and requires proof.

A second paper on the same subject was read by Dr Clark, also of the Committee on Pathology, who thought that as yet the origin of all three diseases—diphtheria, erysipelas and puerperal fever—is as yet uncertain. The parturient condition was one in which the system was badly able to resist effectually the attacks of disease in whatsoever form they might be made, and any of the putrefactive bacilli, which might find entrance into the system of the puerperal woman, would find there a fertile soil and abundant nutriment. The fact that the worst cases of puerperal fever occur within two or four days after labor, should be kept in mind, and since during that time the womb was in a condition best fitted for the absorption of poisonous matters of whatever kind, the utmost care should be taken to render the lochial discharge aseptic, by the use of carbolized gauze, antiseptic absorbent cotton, etc., during the whole of the week immediately following labor.

Dr E. W. Bartlett presented a paper on "Color Blindness," and the dangers to the public arising therefrom. A resolution was adopted as a result of this paper, and the discussion following it, under which a special committee was appointed, the duty of which was declared to be the collection and dissemination of information concerning color blindness, and the losses of life and property caused by it, the presentation of such information to the public generally, and the securing of and from Medical Societies and other bodies, which shall tend to obtaining proper legislation on the matter. Drs Bartlett, Hoey and Brett were appointed a committee for the purpose.

Dr Bartlett presented another paper in which he described a modified operation for cataract.

Dr Catlin reported a case of post-mortem examination, where death was supposed to have occurred from bilious colic. The real cause, however, was discovered in an enlarged, ulcerated and ruptured gall bladder in which were impacted gall stones to the number of at least two hundred.

Dr Manly made report of a case in which the astragalus had been removed to relieve disease following upon dislocation. The foot was a little inverted, but symmetrical in appearance. The wound had healed kindly. Dr M exhibited the bone which had been removed, and it was examined by many members with great interest.

Dr Epley read a paper upon Ergot and its Therapeutic value, claiming that this drug was entitled to rank in usefulness with iron, opium and quinine. It has great power in arresting hacking, irritating coughs, particularly when a relaxed condition of the mucous membrane exists in connection therewith, and has proven of marked value as an internal hemostatic. Its most important power, however, lies in its ability to arrest promptly all acute local inflammations, especially in the respiratory organs, and where it will abort one pregnancy it will cut short ten pneumonias.

Drs Manley, Meacher, Binne and Bartlett were able to endorse several of the positions taken by Dr Epley from the results of their own practice, and the general feeling in the discussion that followed the reading of the paper was favorable to the views of the writer.

The following resolution was adopted:

Resolved, That in consideration of the advances made as to a knowledge of the causes of consumption, and of the now known infectious character of the disease, we use all the means in our power to have the phthisical members of families as much as possible separated from the healthy members, and also that we recommend the State Board of Health to take means to have such persons separated from intimate association with the well in our public institutions.

The following officers were elected for the coming year: President—Dr N M Dodson, of Berlin; Vice Presidents—Drs E W Bartlett and G W Jenkins, Assistant Secretary—Dr Wm Thorndike; Censors—Drs Mason, Senn and Thorndike; Dr Reeve, of Appleton, is permanent Secretary.

Twenty-seven gentlemen were admitted to membership, and the Society adjourned to the first Tuesday in June, 1884, the session to be held in the city of Milwaukee.

A characteristic feature of the meeting, and one which made it one of the most profitable held by the Association, was the large amount of time given to discussion of the various topics suggested by the papers presented.

REPORT OF THE SECRETARY OF THE SECTION ON DISEASES OF CHILDREN

FIRST DAY

CLEVELAND, O, June 5, 1883 }
COUNCIL CHAMBER, CITY HALL }

Section of Diseases of Children convened at 2 30 P M

The Chairman, Dr Blount of Indiana, and the

Secretary, Dr Sears, of Texas, being absent, a temporary organization was effected by calling Dr Charles Warrington Earle, of Chicago, to the Chair, and Dr E L Boothby of Wisconsin to the Secretary's desk. None of the papers in regular programme being present, a volunteer paper was read by Dr Earle on Cephalo Hematoma In the New Born. This subject was discussed by Drs Reed of Cincinnati, Harris of Virginia, Lee of Baltimore and Boothby of Wisconsin.

On motion voted to refer the paper to the committee on publication.

No further business being brought up, the section adjourned till 2 30 P M of Wednesday.

SECOND DAY

Section called to order at 2 30 P M by Dr Earle, of Chicago. He introduced the regular chairman, Dr Blount, of Indiana, who assumed the chair, and Dr Boothby, of Wisconsin, was chosen Secretary for the balance of the meeting, in place of Dr Sears, of Texas, who continued absent.

The paper on the Unity of Membranous Croup and Diphtheria, by Dr Harris, of Virginia, was read, and a very interesting and earnest discussion ensued, participated in by Drs Earle, of Chicago, Christie, of Iowa, Lee, of Baltimore, Sheehan of New York, Freeman, of Ohio, Boothby of Wisconsin, Ulrich, of Pennsylvania, and many others. Voted to postpone further discussion on the subject until Thursday. This vote was reconsidered so far as to allow Dr Harris the reader of the paper, to close the discussion for to-day, as he was obliged to leave, and could not be present at the next session of the Section. Dr Harris' paper was referred to the Committee on Publication.

Dr Alex Y P Garnet, of the District of Columbia, read a paper on Epidemic Jaundice Among Children. The paper was discussed by Drs Lee, of Pennsylvania, Harris, of Connecticut, and Lee, of Baltimore. The paper was then referred to the Publication Committee.

A volunteer paper on the Surgical Treatment of Purulent Pleuritic Effusions in Children, by Dr W H Meyers, of Indiana, was read, discussed and referred to the Committee on Publication.

A second volunteer paper by Dr C W Earle, of Chicago, on a Plea for Pleasant Medication and a more Thorough Study of Infantile Therapeutics.

This paper elicited considerable discussion, after which it was referred to the Committee on Publication.

Dr Boothby, of Wisconsin, was excused from reading his paper on Group and Diphtheria—their Unity or Duality, as the paper of Dr Harris, of Virginia, covered the same ground, and embodied similar views.

The Section then adjourned until 2 P M, Thursday.

THIRD DAY

The Section was called to order by Chairman Dr Blount, of Indiana, at 2 30 P M. Minutes of yesterday's session read, corrected and then approved.

The first paper was read by Dr Good, of Indiana,

on Dentition Discussed by Goodman, of Illinois, Earle, of Chicago, Rud, of Ohio, Freeman, of Indiana, Boothby, of Wisconsin, et al After discussion and reference to Committee on Publication, Dr Casebeer, of Indiana, read an interesting paper on Pædiatric Medication Discussed by Drs Sennet, of Ohio, Ulrich, of Pennsylvania, Von Cline, of Ohio, and others The paper was referred to the Committee on Publication

Moved by Dr Earle that Dr Casebeer read a paper by title which he has not thoroughly prepared, the title of which is Pædiatric Therapeutics and its Relation to General Therapeutics, that he be asked to complete the same and forward to the Section for publication in the transactions, subject to the action of the Committee on Publication

Dr Norman Teal, of Indiana, read a volunteer paper on Infantile or Essential Paralysis Discussion on the same by Dr Meyers, of Indiana, Hvatt, of Iowa, Ulrich, of Pennsylvania, Lee, of Baltimore, Snow, of Michigan On motion, paper was referred to Committee on Publication

As the papers on Diphtheria, by W F Sharrer, of Indiana, on Hereditary Syphilis, by G W Burton, of Indiana, on Cholera Infantum, by B W Ryan, of Indiana, Acute Inflammation of the Lungs in Children Under Six Years of Age, were not present, neither the authors of the same, the subject of Diphtheria, Its Varieties and Variations, was taken up and discussed by E L Boothby, of Wisconsin, by Dr Reed, of Iowa, Dr Sheehan, of New York, Dr Ulrich, of Pennsylvania, Gallagher, of Pennsylvania, Lee, of Maryland, and Dr Hyatt, of Iowa

Dr Hyatt having spoken his allotted time, it was extended, to enable him to finish

The time having been consumed, further discussion was postponed

The Section adjourned, after a session of five hours

E L BOOTHBY,
Secretary pro tem

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER

(For THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION)

Our medical colleges and societies have again resumed their usual activity with the return of fall On Monday, September 10, the University, the Medico Chirurgical, and the Jefferson began their preliminary course of lectures which will continue throughout the month The faculty of Jefferson Medical College, in order to afford every facility for a higher medical education, have organized a post-graduate course This course, which is now being perfected, will consist of five terms of seven weeks each, and will begin October 1 The physicians selected for that course, and the subjects taught by them respectively, are as follows

Ophthalmology, Prof Wm Thompson, Otology Drs L and Chas Turnbull, Gynæcology, Drs F H Getchell and J Ewing Mears, Physical Diagnosis, Diseases of the Chest, Dr J C Wilson,

Orthopædic Surgery, Dr O H Allis, Normal and Pathological Histology, Dr Morris Longstreth, Diseases of Children, Dr O P Rex, Nervous Diseases, Dr J T Eskridge, Laryngology, Drs Sajous and Jurist, Urinary Pathology, Dr J S Neff, Medical Chemistry, Dr G M Ward, Practical Pharmacy Dr S M McCollin, Experimental Physiology, Dr A P Brubaker, Diseases of the Skin, Dr J V Shoemaker, Botany, Materia Medica and Experimental Therapeutics, Drs A K Minich and A R Rinear

At a stated meeting of the Obstetrical Society of Philadelphia, held in the hall of the society, 13th and Locust streets, the evening of Sept 6th, Dr Wm T Taylor reported a case of face presentation with eclampsia The patient was a primipara, age 23, and, as she had been enjoying good health during her gestation, he had no reason to expect trouble At 6 30 o'clock in the morning he was called to the labor, found the pains slow, the os slightly dilated, and was able to diagnose a face presentation with chin toward the sacrum As the patient was quite restless he gave her a chloral mixture and left her and went home for breakfast At 8 30 o'clock he was called hurriedly by the husband, who reported that his wife had had a fit, and while he was in the room soon after his arrival at the house of the patient, she had two convulsions in rapid succession The face was red, the head drawn to one side, and the convulsions attended with all the usual symptoms of eclampsia He immediately sent for some chloral and an injecting apparatus, and injected a dram of chloral dissolved in four ounces of water into the rectum which controlled the convulsions Examination now revealed the os dilated, the head high up, and the face presenting as before An attempt was now made to rotate the head into a natural position with occiput anterior, and was successfully accomplished The patient being restless, another injection of chloral—same strength as before—was administered The head was then brought down the inferior strait, the labor left to nature, and soon a still-born child was born There was no more eclampsia The patient was now unconscious from the chloral, but finally awoke refreshed Later in the afternoon, however, she was somewhat restless, but the next morning her condition was good in every way except a slight abdominal tenderness No further trouble was experienced Dr Taylor particularly referred, in this connection, to the virtue of chloral in controlling puerperal convulsions of a nervous character

In discussing this report, Dr Albert H Smith suggested that the discussion be particularly directed to the subjects of the management of face presentation and convulsions He considered Dr Taylor fortunate in being able to restore the position in the case reported from a presentation of chin posterior to that of the occiput anterior position, and retaining it thus during the application of the forceps This he had found in his experience a very difficult thing to do He thinks there is something very mysterious in the ætiology of face presentation Though not difficult to understand why the face comes down, secondarily, from a gush of water in partial flexions for

enlarged during the past five years, but states the glands in the axilla began to "grow" about two years ago

On September 23, 1882, having missed her so-called neuralgia, she decided to suspend further treatment

I now lost sight of her until April 16, 1883 (seven months) when I was called, and found she had been bleeding from the nose for about ten hours, and had lost one and a half pints of blood By the 20th she was quite well, on the 25th she again lost near a quart of blood from the nose, on the 30th she had a severe hæmorrhage from the gums, May 6 she lost over a pint from the nose, same amount on the 9th, the 20th she vomited fully half a pint From May 30 to August 21 she had six hæmorrhages from the nose, and lost from four ounces to one pint of blood each time

August 29, at 4 o'clock, A. M., was called in haste and found her in a fearful tetanic spasm, August 30, very nervous and weak September 2 she again lost one pint of blood All along, there has been no evidence of cardiac disease, until to-day we have an anæmic murmur, liver and spleen somewhat enlarged, cachexia and emaciation marked

These hæmorrhages are preceded by pain in her cancer, and a determination of blood to the head

Notwithstanding, blood was once vomited, tenderness was not detected in her epigastrium, and, I think, must have been swallowed

During the months of June, July and August, extreme prostration prevailed, with localized neuralgic pains over entire body Temperature has fluctuated between 98° and 102° F At this writing she is much stronger, and quite free from pain Appetite fair, bowels rather costive

I have carefully investigated her family history, and find it good She states her parents died of old age, and were free from hereditary tendency to phthisis, cancer or bleeding

She has two brothers living, and in good health, except each of them has a tumor, and has been advised by Dr Penwell, of Shelbyville, Ill., to have no surgical interference She has two sisters dead, one died from milk-sickness, the other from childbirth Herself, was never pregnant

As yet I have no comments, except to intimate that I firmly believe, where we have even a remote tendency to skin disease, or malignancy, continued malarial poisoning is likely to bring it out

The treatment has been anti-malarial, tonic and astringent Strict attention given to hygiene and general nutrition

As ergot would promptly vomit her, I began the use of 'Kennedy's Aqueous Extract of Pinus Canadensis,' and find it has a positive effect in contracting dilated vessels and toning up the relaxed bowels

Now, any suggestions of real merit the profession may favor me with will be thankfully received, and and due credit given in a report of progress and termination of the case

The following letter, though written for the *Daily Springfield Register*, so fully expresses the views and

expectations of a large proportion of the sanitarians of the present day, that we give it a permanent record —[Ed.]

MY DEAR SIR I am this evening in receipt of your circular of inquiry, forwarded to me from Chicago, and in which you ask a brief statement of my views "as to the probability that this country will suffer from the threatened epidemic" of Asiatic cholera, and as to the precautions which should be adopted, etc

I am reconciled to the fact that my "views" concerning such a probability are worth no more than, if so much as, those of the editor of a metropolitan newspaper, with his facilities for judging of probabilities, by the other fact that epidemics are by no means unmixed evils It was a recurrence of cholera epidemics which directly led to the first attempt at sewers in Chicago, and to the present system of water supply It was the recurrence of yellow fever epidemics in Memphis which led to the sanitary regeneration of that city It was the recurrence of epidemics of both diseases which resulted in the magnificent sanitary work, educational and practical, of the New Orleans Auxiliary Sanitary Association

The salutary spur of an occasional epidemic outbreak seems to be necessary in order to secure any decent amount of attention to the care of the public health, at least while the sanitary schoolmaster is so much abroad as at present In any prolonged exemption from such visitations, communities become lax, and gradually grow to tolerate conditions which result, directly or indirectly, in an enormously greater aggregate of mortality than that caused by any epidemic

For example The class of diseases to which Asiatic cholera belongs, and which are all more or less preventable, caused 5,136 deaths in an aggregate mortality of 13,234 in Chicago last year In 1881 it caused 5,985 deaths out of a total of 14,101 This is an average of 40 per cent of the total mortality The last epidemic of cholera (1873) caused only 3,825 deaths in the whole country—nineteen States being invaded There had been no epidemic cholera in the United States for six years previous, since 1866, but during those six years not less than 125,000 persons had been carried off by the group of diseases most closely resembling it

The moral of these figures seems to me no less obvious than that of the tables in the report of the Health Department, recently issued Take from this report the table of zymotic mortality by wards and compute the ratio of this mortality to population The result will furnish a very accurate index of the sanitary status of each ward When the zymotic mortality is greatest there will be found the most overcrowding, the greatest amount of personal uncleanness, the greatest want of sewerage, the most neglected scavenging, the most abundant and various filth, both surface and subterranean Epidemic cholera might temporarily increase the death rate under these conditions, but the average mortality for a series of years would not be materially affected

Enough, however, in this strain I suppose there is no prosing nor prophecy so insupportably dreary

as that of the sanitary Cassandra By way of amends let me offer the following series of propositions concerning Asiatic cholera, formulated in a report which I drew up in 1875 at the request of Surgeon-General John M. Woodworth, of the Marine hospital service, and under whose name it was published in the volume entitled "The Cholera Epidemic of 1873 in the United States"—(Ex Doc No 95, H R XLIII^d Congress, 2d session) These propositions are based upon a vast mass of cumulative evidence collected by cholera students in both hemispheres, and were originally intended to bear solely upon the question of the exclusion of the disease from this country They will be found, however, equally applicable to methods of stamping out the disease should it effect foothold, and to the personal protection of the individual

I Malignant cholera is caused by the access of a specific organic poison to the alimentary canal, which poison is developed spontaneously only in certain parts of India (Hindustan)

II This poison is contained primarily, so far as the world outside of Hindustan is concerned, in the vomit, stools, and urine of a person already affected with the disease

III To set up anew the action of the poison a certain period of incubation with the presence of alkaline moisture is required, which period is completed within one to three days, a temperature favoring decomposition, and moisture or fluid of decided alkaline reaction, hastening the process, the reverse retarding

IV Favorable conditions for the growth of the poison are found (1) in ordinary potable water containing nitrogenous organic impurities, alkaline carbonates, etc., (2) in decomposing animal and vegetable matter possessing an alkaline reaction, (3) in the alkaline contents of the intestinal portion of the alimentary canal

V The period of morbid activity of the poison—which lasts, under favorable conditions, about three days for a given crop—is characterized by the presence of bacteria, which appear at the end of the period of incubation, and disappear at the end of the period of morbid activity That is to say, a cholera ejection, or material containing such, is harmless, both before the appearance and after the disappearance of bacteria, but is actively poisonous during their presence

VI The morbid properties of the poison may be preserved in posse for an indefinite period in cholera ejections dried during the period of incubation, or of infection matter dried during the period of activity

VII The dried particles of cholera poison may be carried (in clothing, bedding, etc.) to any distance, and when liberated may find their way direct to the alimentary canal through the medium of the air—by entering the nose and mouth and being swallowed with the saliva—or, less directly, through the medium of water or food in which they have lodged

VIII The poison is destroyed naturally either by the process of growth or by contact with acids, (1) those contained in water or soil, (2) acid gases in

the atmosphere, (3) the acid secretion of the stomach

IX It may be destroyed artificially (1) by treating the cholera ejections, or material containing them, with acids, (2) by such acid (gaseous) treatment of contaminated atmosphere, (3) by establishing an acid diathesis of the system in one who has received the poison

For the non-professional reader the pith of these propositions is contained in the last two—the eighth and ninth Nothing has since come under my observation to change the conviction arrived at, when these propositions were framed, namely That the mineral acids may be relied upon as a certain means of preventing the spread of Asiatic cholera

FRANK W. REILLY, M D

Springfield, Ill., Sept 12

NITRO-GLYCERINE AND DYNAMITE

WASHINGTON, D C, Sept 12, 1883

Dear Mr Davis Having seen in a recent number of the JOURNAL an article concerning the toxic properties of dynamite and nitro-glycerine, it occurred to me that it might be well to say that nitro glycerine is one of the most dangerous poisons known A single drop on the tongue of a cow will kill her instantly, and the poisonous property of this explosive, when applied to the surface of the body, is well known to those operatives engaged in its manufacture

Now, dynamite is simply nitro-glycerine spread out upon the surface of the particles of an infusorial earth (*Kieselguhr*), which, by reason of its cup-shaped surfaces, allows a greater portion of the nitro-glycerine to be spread upon it, in proportion to its bulk, than any other substance at present known It is thus seen that the nitro-glycerine is simply diluted when made into dynamite, and the latter still retains the toxic property of the original nitro glycerine

It therefore behooves those who desire to try the effect of dynamite upon their cases of cerebral anæmia to be sure that it is very dilute when administered, and very fresh, for nitro glycerine is one of the most unstable compounds Theoretically, it seems that small, continuous, and very dilute doses of dynamite ought to be a specific in cases of cerebral anæmia

JOHN B. HAMILTON,

DOUBLE DISLOCATION OF THE HIP

N S DAVIS, M D, L L D, EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

My Dear Sir—In the weekly number of this journal, date of August 25, appears an article headed "Simultaneous Traumatic Dislocation of Both Hip Joints," by J H Packard, M D After reviewing the literature on this rare subject, he claims to have detailed all of the cases accessible Permit me to invite attention to a case reported in the "Transactions, of the Pennsylvania State Medical Society," page 405, volume XXX—double dislocation, with fracture of the acetabulum of the right side While the accident most happily is rare, it is well to tabu-

late the cases that are reported, in order to permit the most favorable deductions to be made in favor of such treatment that secures the best results

Very respectfully,

D W BLAND

POTTSVILLE, PA, Sept 15, 1883

LATE RESUSCITATION IN APNŒA NEONATORUM

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

I desire to collect information and statistics on the resuscitation of the asphyxiated new-born where prolonged efforts at restoration have met with success. The history of any such cases, with comments or opinions, from readers of this journal, will be thankfully received and acknowledged

ELMER GLOVER, M D

Terre Haute, Ind

CORRECTION

N S DAVIS, M D, LL D, EDITOR,

My Dear Sir Please make the following corrections in my eye article in JOURNAL AMERICAN MEDICAL ASSOCIATION, No —, Sept 8, 1883

Page 258, second column, third line from bottom of page, read ¹⁰⁰/₁₀₀, page 258, fourth line, read ¹⁰⁰/₁₀₀ and ¹⁰⁰/₁₀₀, in second column, same page, eleventh line, read ¹⁰⁰/₁₀₀

H CUIBERTSON, M D,
Zanesville, Ohio

NECROLOGICAL

HOPPER, H A, M D, the son of a prominent physician of Bergen county, N J, was born August 8, 1824, died at his residence in Hackensack July 8, 1882. He was graduated from the College of Physicians and Surgeons, New York City, in 1847, and soon after settled in Hackensack, N J. His family position, courtesy of manner, active devotion to professional duty, and great skill, soon commanded a lucrative practice extending over a large section of country. He was the president and an active member of the Bergen County Medical Society, and would probably have been appointed president of the State Medical Society had he lived until its next annual meeting. As president of the New Jersey Sanitary Association he delivered a valuable address a year before his death. Many valuable contributions were made by him to this Association, and to the State and County Societies. He was president of the local Board of Health, and was active in promoting the public welfare. His hearty interest in all that concerned the medical profession, his kindness of heart, and zeal with knowledge, combined to make him popular. He was a man of large experience, decisive in counsel, and in action could always be relied upon as a man clear convictions and of judgment. An outspoken Christian life adorned his professional character, and, while devotion to his profession was untiring, he was always prominently interested in all good works. Although an occa-

sional sufferer from attacks of inflammatory rheumatism, no serious internal lesion manifested itself until a few months previous to his death. Young in feeling and vivacious always, he seemed still among the juniors, and worked at every new department with the interest of a student. His decease is mourned by an entire community and by the whole profession of the State

E H M

Forwarded by Dr B A Watson

WAKEFIELD, HORACE POOL, M D, of Leicester, Mass, was born in Reading, Mass, January 4, 1809, died at his residence in Leicester August 30, 1883. He was the son of Deacon Caleb and Matilda (Pool) Wakefield. The Wakefields were of Welsh origin, and the Pools English, and among the first settlers of Reading. He prepared for college at Bradford, Mass, and at Pinkerton Academy, Derry, N H, and graduated in letters at Amherst College, and in medicine at Dartmouth in 1836. He began practice at Oakham, Mass, and met with good support, but in 1844 was induced to remove to Reading, and continued to practice until 1866. He had served in the Legislature while a resident of Oakham. In Reading he served as Town Clerk in 1857 and 1858, and was also a member of the School Committee, President of the South Reading Insurance Company, and of South Reading, Reading and Stoneham Gas Company. Dr Wakefield was State Senator in 1862 and 1863. He was at one time President of Savings Bank and Director of the Palmer National Bank. In 1879 he purchased the "Stonewall farm," in Leicester, and removed to it, where he remained to the time of his demise. He was a member of the Massachusetts Medical Society, and one of the councilors and one of the former vice-Presidents, President of the Middlesex East District Medical Society, before which he delivered the annual address in 1867. Also a member of the American Medical Association since 1858. In 1838 Dr Wakefield was married to Abigail Pratt, of Reading, who died in 1850. A few years after this he married Mary B. Cristy, of Johnson, Vt, who, with one daughter, survives him.

J M T

LAWTON, SANFORD, M D, born at Monson, Mass, October 16, 1832, died suddenly of disease of the heart while visiting friends at Scranton, Pa, July 23, 1882.

Having acquired a good preparatory education, he studied medicine, and, attending lectures, graduated M D at Yale College in 1852. He began practice at Pittston, Pa, where he labored successfully for fifteen years. In 1870, for the purpose of better facilities for educating his children, and secure greater comforts for his aged parents and an invalid sister, he removed to Springfield. Here he acquired a remunerative practice. He was for three years president of the Hampden District Medical Society. He was also for some years a member of the School Committee, and held other offices of honor and trust.

From data furnished by Dr H O Marcy

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HENRY TRIMBLE,

(Analytical Chemist)

F A GENTH

UNIVERSITY OF PENNSYLVANIA, MEDICAL DEPARTMENT

POST-GRADUATE INSTRUCTION

The Post Graduate Instruction for the Session of 1883-4 includes the following subjects

CLINICAL MEDICINE AND PHYSICAL DIAGNOSIS, by PROF PEPPER and DR BRULIN
RENAL DISEASES AND DIABETES, WITH PRACTICAL EXAMINATION OF URINE, by PROF TYSON
NERVOUS DISEASES AND ELECTROTHERAPEUTICS, by DR S WEIR MITCHELL and DR SINKLER at the Orthopaedic Hospital
CLINICAL SURGERY, by PROF ASHHURST
OPHTHALMOLOGY, by DR S D RISLEY
DERMATOLOGY, by PROF DUHRING
OTOLOGY, by PROF STRAWBRIDGE
GYNÆCOLOGY, by DR F F BAER
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